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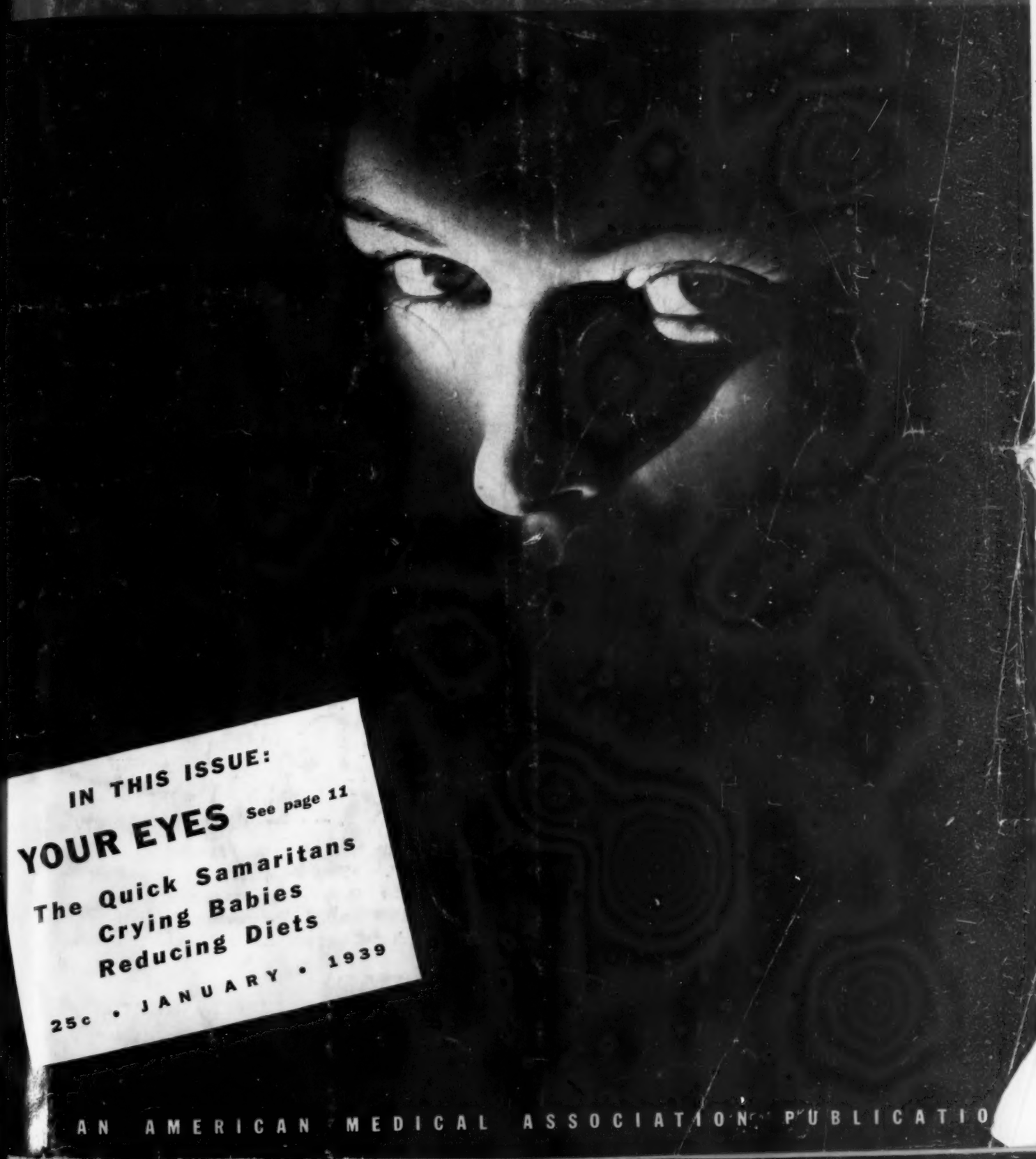

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YOUR EYES See page 11

The Quick Samaritans
Crying Babies
Reducing Diets

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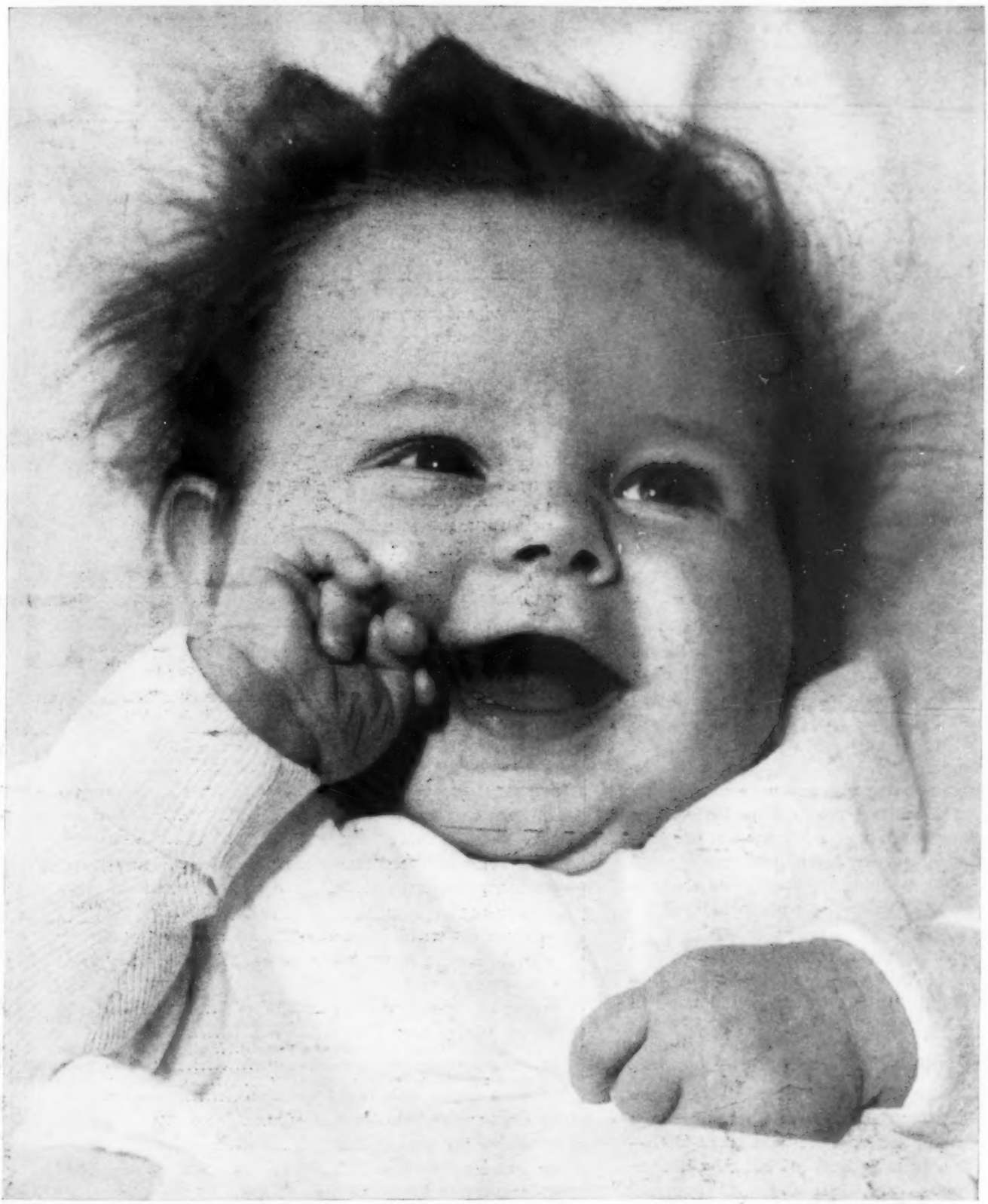

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Often your doctor can bring about a complete change in your baby's disposition and appearance, give it healthy color and firm muscles simply by changing its feeding. Your physician has at his command many such modern scientific miracles that not only add much to your baby's present comfort and welfare but also set the pattern for happy years to come.

BABIES SUPERVISED BY PHYSICIANS ARE BETTER BABIES

This space is devoted to the interest of better babies by
MEAD JOHNSON & COMPANY, *Evansville, Indiana*

JANUARY 1939 Vol. 17 No. 1

HYGEIA

THE HEALTH MAGAZINE

Published and copyrighted, 1938, by the American Medical Association. Edited by Morris Fishbein, M.D.

NEXT MONTH

J. HAMILTON CRAWFORD, M.D., will write on *"Public Health Aspects of Heart Disease,"* a discussion which includes causes, symptoms, prevention and treatment of various kinds of cardiac ailments.

R. G. LELAND, M.D., considers *"The Health of 40 Million People,"* the 40 million underprivileged in the United States, and tells what the medical profession has done and will continue to do to make good medical care readily available to them.

ROBERT A. KILDUFFE, M.D., proves once more that truth is stranger than fiction. In *"The Deaths in Golden Square,"* he tells the story of Dr. John Snow, who quelled a cholera epidemic by the simple procedure of removing a pump handle.

FRANCIS J. SCULLY, M.D., tells of *"Health and Mental Development in Children,"* reaffirming the ideal of "a sound mind in a sound body."

IRMA FUEHR, writing about *"Your Baby and the Hospital,"* shows step by step what happens to the newborn infant in the hospital from the moment of birth—not only *what* happens but *why* it does.

CHEVALIER JACKSON, M.D., and CHEVALIER L. JACKSON, M.D., reveal the importance of *"Your Voice,"* for, as they point out, "There are few occupations in which a good clear way of speaking is not an asset."

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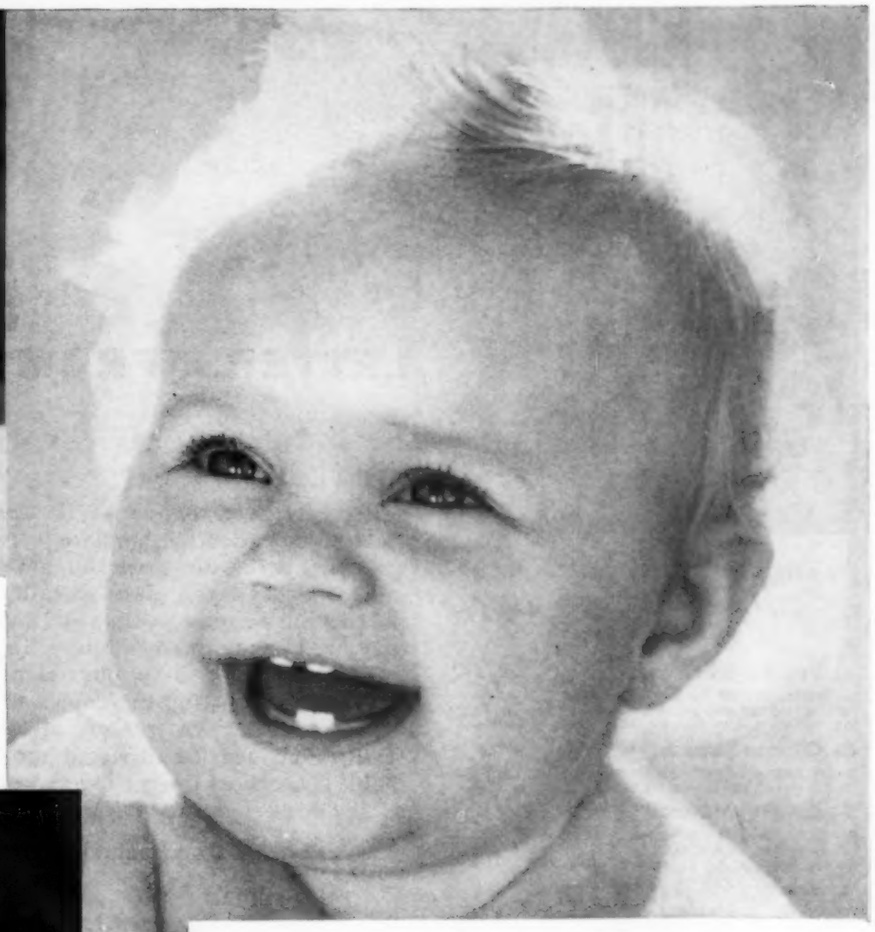
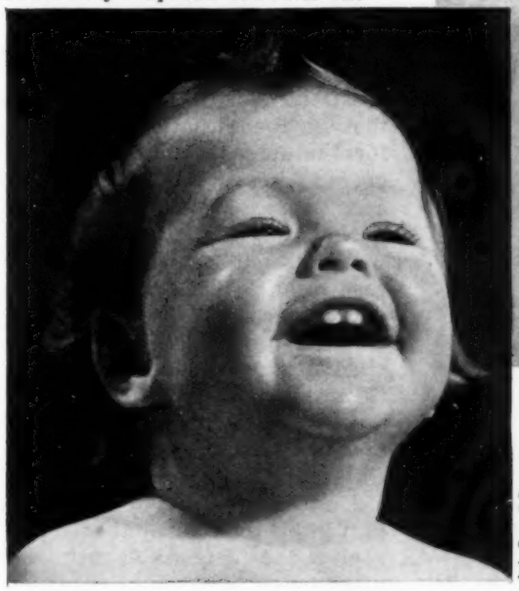
well developed jaw + chin....

Your baby also needs Vitamin D to develop his jaw and chin fully. Sunshine, alone, does not supply him with enough Vitamin D these dreary winter months. Give him a *dependable* source daily – Squibb's Cod Liver Oil!





TEETH.... sound.... even....

You can help your baby build teeth that come in sound and even by giving him plenty of one special factor – *Vitamin D.* This helps transform the calcium and phosphorus he gets in his food into hard tooth structure. To make sure your baby receives enough Vitamin D, give him Squibb's Cod Liver Oil regularly!

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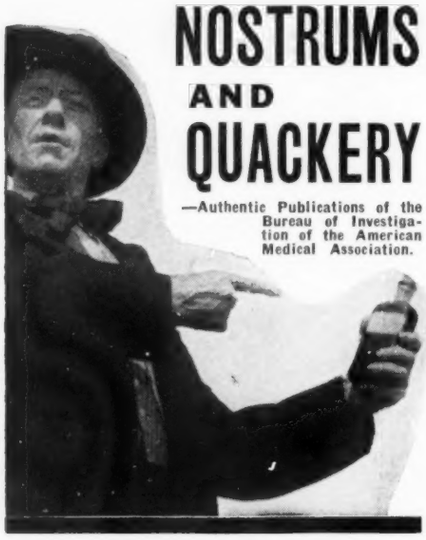

NOSTRUMS AND QUACKERY

—Authentic Publications of the Bureau of Investigation of the American Medical Association.

The Truth About Some "CURES"

1. Patent Medicines

A reprint of articles by Dr. Arthur J. Cramp, discussing the general relation of the "patent medicine" evil to the public health. Illustrated. 15 cents.

2. Cancer "Cures"—"Treatments"

Deals with a miscellaneous assortment of "cures" and "treatments" for cancer. Illustrated. 15 cents.

3. Obesity "Cures"

Describes some of the systems sold on the mail order plan, as well as a number of preparations purchasable at the drug stores. Illustrated. 15 cents.

4. Female Weakness "Cures"

Deals with mail order concerns that "specialize" in "women's diseases," and widely-advertised nostrums sold for "female weakness." Illustrated. 35 cents.

5. Cosmetics—Allied Preparations

This pamphlet deals with preparations for the skin; for the hair; "hair removers," deodorants, etc.; and includes special articles on hair dyes, "hair tonics" and "complexion clays." Illustrated. 15 cents.

6. Deafness "Cures"—"Treatments"

In this pamphlet several widely-advertised concerns and products are exposed. Illustrated. 15 cents.

7. Mechanical Nostrums

Deals with "electric belts," the "electro-chemical ring," several "rupture cures," and the various "gas-pipe" cures, etc. Illustrated. 15 cents.

8. Miscellaneous Specialists

Some self-styled specialists, itinerant and otherwise, form the subject matter of this pamphlet. Illustrated. 20 cents.

9. Kidney Disease and Diabetes

Nostrums sold for the alleged cure of diabetes are grouped and discussed with those sold for Bright's disease. Illustrated. 15 cents.

10. Consumption "Cures," etc.

Discusses preparations sold for the alleged cure of tuberculosis, as well as a number of so-called cough remedies. Illustrated. 15 cents.

11. Epilepsy "Cures"—"Treatments"

Practically all of the "cures" are preparations of bromides or phenobarbital. Names and describes many preparations in this group. Illustrated. 15 cents.

12. Mineral Waters

Mineral waters, as well as patent medicines, may be sold under deceptive claims. A number of such products are described. Illustrated. 10 cents.

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LETTERS FROM *Readers*

To the Editor:

Recently some copies of HYGEIA came to our attention, and we were delighted with the great improvement that has taken place since the publication of some years ago. Not only are your magazines interesting to laymen but also to physicians.

We are circulating the copies we have among all the workers of the Health Center staff and we all agree that it is the most interesting as well as the most helpful magazine.

ANNA E. RAY ROBINSON, M.D.
Brooklyn, N. Y.

▲

To the Editor:

I think your HYGEIA magazine is silly. Perhaps O. K. for a backwoods family or a 10 year old child.

LILLIAN M. KUEHNER, R.N.
Detroit, Mich.

▲

To the Editor:

I was much interested to read in the November number of HYGEIA both "The Apple of Sleep" by Kilduffe and "The Evolution of Anesthesia" by Lewin. But it seems to me that somewhere in their admirable presentation of the subject, mention might well have been made of another epochal event, which was a sort of connecting link that it was my privilege to witness thirty-two years ago, and which remains the most thrilling historic medical memory in my experience.

In June 1906, sixty years after the scene so vividly pictured in the surgical amphitheater of the old Massachusetts General, I was present with another eager group of physicians in the same room to witness the first spinal anesthesia ever allowed there, by a doctor of the same name, A. W. Morton of San Francisco; and again the surgeon operating was J. Collins Warren, descendant of the one of same name who first operated under ether.

I visualized with much emotional stir the former great occasion, for I am sure we all felt the same doubt, and the same thrill with the successful issue, as did the other group sixty years before. And I think great credit is due the later Morton that he then used the spinal fluid for the solvent of his drug tropacocaine in the same manner now accepted as best, after all the experimenting of the years. Probably the fact that he had at that time records of 2,700 administrations of spinal anesthesia without a death was the open sesame to that exclusive amphitheater, which up to then was closed to all patients unless under ether anesthesia, and may have gained him access to Boston City Hospital the day before.

I esteemed it a real treat to visit him in his own hospital in 1936 and revive the acquaintance and the memory.

H. H. CANFIELD, M.D.
Seattle, Wash.

▲

To the Editor:

Some of the articles are too childish in get-up and style. Such a journal is essentially for adults. Why give them so much kid stuff? I like best the *straight forward* articles written without attempt at story-telling or dramatization, in nontechnical language.

J. P. BENNETT
Berkeley, Calif.

To the Editor:

As you know that Germany leads the world in all medical work and chemistry, I follow their advise in every thing, also our 100 per cent American doctors have received their education over there, and I have seen them. I find Hitler was right in what he says regarding the health of people and he has been given good advise by his medical advisors. I have before me a book translated from German, it goes into the subject of American quackery and is quite true.

So I again say that Hitler is right in every thing he does towards making Germany a real Germany.

So I say that I don't need any of your printed matter nor am I interested in same.

J. L. McPHERSON

▲

To the Editor:

Several years ago I used to go to a physician who always had the current issue of HYGEIA lying on his waiting-room table. I enjoyed those brief glimpses into your splendid publication. He has since died, unfortunately, and I regret sincerely that I haven't happened upon another doctor since who was farsighted enough to appreciate the good impression that such a magazine can make on the man or woman who sits outside and waits.

Seriously speaking, though—for I am very serious about this matter of waiting-rooms—I think physicians in general would profit considerably if they would occasionally take their noses out of the operating rooms and poke them into their own waiting-rooms. I hope you agree with me.

SETH HARMON

Doylestown, Pa.

▲

To the Editor:

I received the sample copy of HYGEIA which you recently mailed me and—well I was a little disappointed.

If only the entire contents could have ranked with the articles "Nerves and Indigestion" and "Normal Abnormalities" I could very easily have read it from cover to cover.

J. WOODLEY

St. Louis, Mo.

In Case Of

SUPERFICIAL

SCALD OR BURN

▼

NURSES, as well as experienced housewives, know that our Baking Soda proves effective as a first aid for superficial scalds and burns. It is pure Bicarbonate of Soda and should be applied as a wet paste, covered with a damp cloth and kept moist, to relieve pain.

Our Baking Soda is pure Bicarbonate of Soda and is classified as an official U.S.P. remedy by the Council on Pharmacy and Chemistry of the American Medical Association.

Our Baking Soda performs many important services in the home. When prescribed it is an effective relief from hyperacid types of indigestion, and relieves the itching of eczema, hives and other skin affections. It is also an effective and inexpensive dentifrice which cleans the teeth naturally, pleasantly and thoroughly.

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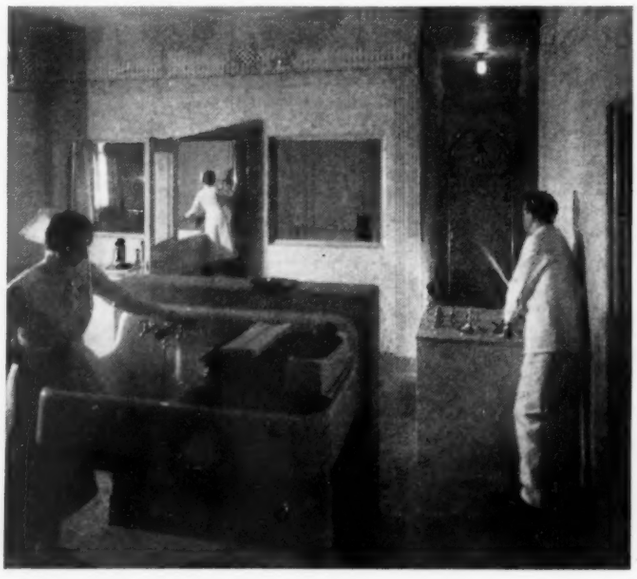
THE ELECTROTHERAPY ROOM IN A LARGE EASTERN PSYCHIATRIC INSTITUTE IS EQUIPPED WITH A DIATHERMY MACHINE.

THE HYDROTHERAPY ROOMS ARE EQUIPPED FOR GIVING VARIOUS KINDS OF BATHS, SHOWERS, SALT GLOW AND DOUCHES.



POTTERY MAKING, SCULPTURE AND BAS-RELIEF ARE SOME OF THE DIVERSIONS IN THE ARTS AND HOBBIES SECTION.

From the painting by Robert Fleury

THE GREAT PHYSICIAN, PINEL, LITERALLY STRUCK THE CHAINS FROM THE INSANE; THEY HAD BEEN TREATED AS THOUGH THEY WERE CRIMINALS.

The Problem of Mental Disease in the United States

THE PROBLEM of mental disease in the United States is becoming increasingly important. Harold F. Dorn of the United States Public Health Service estimates that the annual cost of hospitalization of patients alone is between $150,000,000 and $200,000,000. The figures of the Council on Medical Education and Hospitals indicate that these patients occupy 47 per cent of the total number of hospital beds in the United States. More serious, however, is the fact that the number of people put in hospitals for mental disease increased more than 40 per cent from 1926 to 1936.

All sorts of explanations are offered for the increase of incidence of mental disease. Many credit it to the increasing complexity and strain of modern life, claiming that the human being is not fitted to living under the conditions under which most of us live today. The speed of travel, the overcrowding, the innumerable demands for the individual's attention, the complexity of our recreations are all said to play a part in the strain that is increasing. Every one knows that the ears of the human being today are assailed by a multiplicity of stimuli from devices associated with transportation, machinery used in industry, radios and methods of advertising. The determination of how much of a part each of these agencies plays in increasing the strain on the human nervous system is still a matter of investigation.

Every one knows that our methods of caring for the insane have changed. Once these people were treated like criminals, frequently being killed or forced to leave the community; when incarcerated in asylums, brutality in their treatment prevailed. Then the great physician, Pinel, struck the chains from the insane. Today we have developed methods of treatment and hygiene related to the mind which must in the future make a considerable difference in the scope of this problem. In those days many people hesitated to utilize an institution for the care of the mentally disturbed. Today it is recognized that such institutions can do much for the alleviation of mental difficulties. Of course the crowding that has taken place in the cities and the building of small apartments in place of the large houses that used to be available puts an added burden also on our hospital facilities for the care of conditions that affect the mind.

Quite likely in the future new methods of treatment, such as insulin shock treatment, the heat treatment, the use of baths and occupational therapy will do much to aid the mentally disturbed and to permit a lessened length of stay in the hospital.

In his consideration of the subject, Mr. Dorn points out that some 2,200,000 children are born each year and that eventually from 110,000 to 120,000 will be committed to hospitals for mental disease. Obviously, a far-sighted people will plan definitely for the care of such cases, but a more important consideration is the question of prevention. The chief burden on the hospitals, however, is the number of admissions coming from the higher age groups. It should be borne in mind that life expectancy at birth has increased from 40 years, which it was fifty years ago, to well over 60 years at the present time. Taking it for granted that improvements in methods of treatment will proceed at about the same rate during the next twenty years that they have in the past twenty years, the experts estimate that the number of people committed each year to a mental hospital after 1960 will be twice the number committed for the first time at present. Here is a real stimulus to scientific research! The problem is, however, not only a scientific problem but also a social one. It is one well worthy the attention of the best minds that can be devoted to it.

THE STREET CORNER IS THE SCENE OF AN ACCIDENT; BELLEVUE HOSPITAL EMERGENCY WARD IS THE NEXT SCENE OF ACTION.

Keystone View Company

The Quick Samaritans

By PETER CARY

THE WAIL of a siren dies away; an ambulance swings up to the emergency entrance. White-jacketed orderlies lift out a young girl, limp as a rag doll; ten minutes ago they found her beside a gas stove, its jets streaming colorless death. Now, with impersonal solicitude, they deposit her in a Drinker respirator, commonly known as the "iron lung." There is a surging hum, followed by the rhythmic hiss of rushing air as the marvelous apparatus begins to simulate the mechanics of respiration. Meanwhile a rubber tube attached to a suction device removes fluid and mucus from the girl's throat; oxygen mixed with a trace of carbon dioxide stimulates her breathing. Presently the patient stirs within the respirator. She's coming 'round!

Melodramatic? Perhaps. But it's a run-of-the-mill incident in the emergency ward of New York City's 2,500-bed Bellevue, the largest hospital in Manhattan. Crises are too common to create excitement here; there are no emergencies in the ward, only emergency cases. And the ward is ready for all of them. Everything from a nosebleed to a subway crash is anticipated long before it happens. When it does happen, it is handled with disciplined speed—but never a hint of haste.

Cardiac cases, epileptic seizures, smash-ups—in seven ambulances their victims surge into the ward on a twenty-four hour wave. Saturday nights and holidays are worst, a veritable carnivalia of stitching and bandaging, for it is then that alcoholics carouse most damagingly and motorists work carnage on the population. A tenement blaze will bring twenty or thirty badly burned inmates and firemen into the ward for treatment that saves many a singed life. Taxi strikes or labor riots along the docks always boost the admissions, keep the staff struggling with broken heads, knife thrusts, gunshot wounds. Attempted suicides by hanging, stabbing, shooting, asphyxiation and drinking poison are thwarted every day by the cool young physicians who learn to staunch a sliced carotid artery with one hand and reach for the proper antidote with the other.

Bellevue operates on the theory that the life flame is not easily extinguished. Indeed, no emergency ward could function unless human beings showed a surprising stamina in fending off death. As a rule there is sufficient time for proper emergency measures but not a split second for mistakes. Although people *can* die with startling suddenness, the doctor usually has time for a rapid physical examination and even a few laboratory tests.

Here, for instance, is a man in a profound coma, found on the sidewalk by a policeman. The patient is a total stranger to the doctor; no medical history or helpful information can be obtained because the patient is unconscious. There are at least fifteen causes of coma, each demanding a different handling. The treatment for a person in a diabetic coma might be fatal to a patient in insulin shock. It becomes, therefore, a first-rate problem in medical detection to discover the cause of the patient's condition. The doctor starts at scratch by smelling the patient's breath. There is no telltale odor of whisky, so the coma is not alcoholic. Nor can the doctor detect the characteristic fruity breath odor found in diabetic patients. There are no marks of violence, no obvious fracture of the skull, although this will be further investigated later. All this is determined in a swift survey; the doctor now listens to the patient's heart. Its flagging, thready beat, together with the man's bluish complexion, indicates that the coronary arteries of the heart have become con-

stricted and are starving for blood. From a glittering armament of instruments the physician seizes a hypodermic syringe filled with nitroglycerin and injects this powerful drug into the patient's arm. Promptly the coronary arteries dilate in response to the drug, thus easing the flow of blood to the heart. After a period of rest the man will be sent home, his life saved by emergency ward skill.

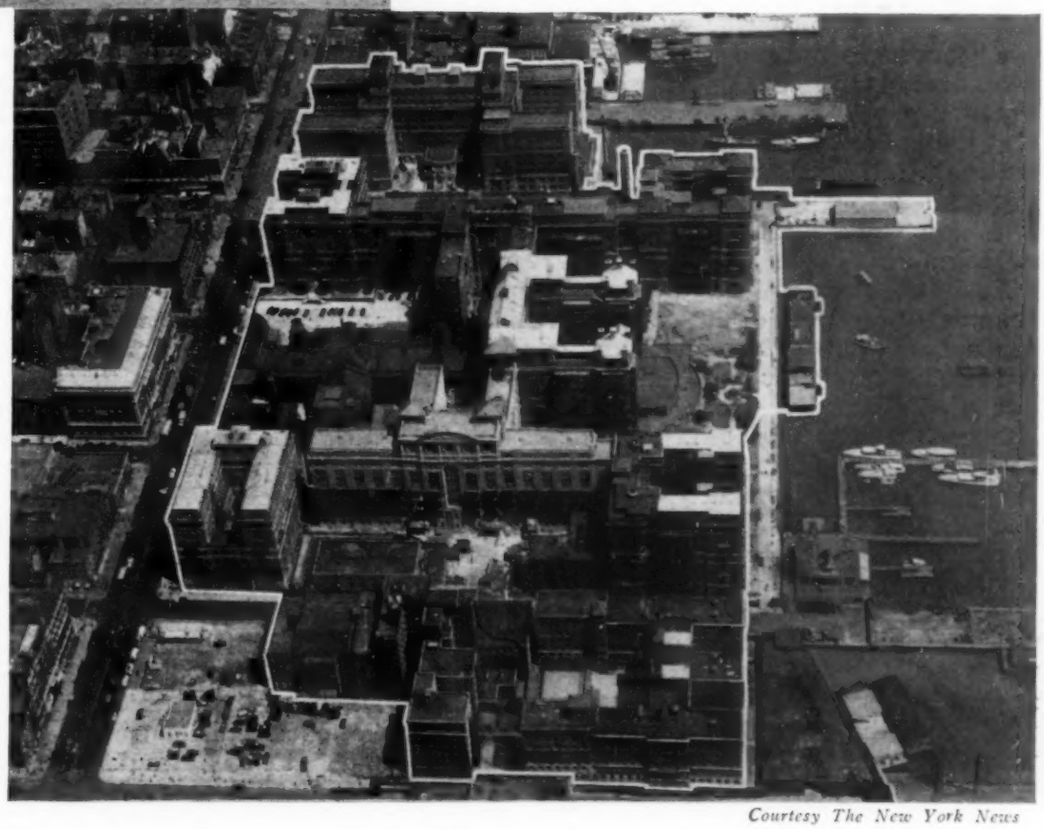
There is no question of a fee; saving lives in emergencies is a service performed gratis by the ward, which is supported by the taxpayers of New York City. The quick samaritans who work there receive $15 a month, plus room and board, from the city. They do not accept gratuities; but they get something unpurchasable at any price—a rich and varied medical experience in concentrated form and under expert supervision.

The great city relentlessly chops out its grist of accidents and sudden illnesses. Here is a visitor from a distant state who collapsed in Times Square with extreme pain in the lower right quadrant of his abdomen. Rush him to Bellevue! Is his trouble easily diagnosed? Yes. The high white corpuscle count in the blood confirms the doctor's suspicions—acute appendicitis. Delay is dangerous; there is no time to move the patient to a regular ward, so he is wheeled express to the emergency operating room. An hour later he is in a hospital bed, saved from peritonitis (and probably death) by the quick action of the ward. If he can afford to pay a small fee for his hospitalization, it will be accepted; but the matter is not brought up until he is well out of danger.

It is a blistering summer day; the mercury leaps like a salmon toward the top of the thermometer. But the man on the stretcher is unconscious; his skin is ashen, cold and clammy. Blood pressure and temperatures are both subnormal; his lips are swollen and dry. He is suffering from heat exhaustion; his body clamors for liquids. The doctor orders two quarts of salt water administered through a vein to increase the body fluids and raise the blood pressure. A nurse hangs a big ampule of salt solution on a tall stand, attaches a rubber tube to the outlet; the solution is given through a hollow needle directly into a vein in the patient's

Keystone View Company

THE AMBULANCE LEAVES THE GATE OF BELLEVUE ON AN EMERGENCY CALL.



Courtesy The New York News

THE IMMENSENESS OF BELLEVUE CAN EASILY BE GRASPED FROM THE AIR. THOSE BUILDINGS ENCLOSED WITHIN THE WHITE LINE FORM THE LARGEST HOSPITAL IN MANHATTAN—BELLEVUE.

forearm. The salt water flows by gravity into the vein, drop by drop. Meanwhile, another nurse has wrapped the patient in blankets along with several hot water bottles to help raise his temperature.

Half an hour later, just as our patient is beginning to show signs of renewed life, another heat victim is brought in on a stretcher. He is delirious; his temperature is 107 F. Literally, his body is on fire. Again the doctor orders salt water administered intravenously, but this time the subsequent treatment is different. A nurse wraps the patient in icy sheets. Another nurse irrigates his large intestine with cold water. To check the mounting fire within his body, the patient is packed in ice, while three nurses massage his arms and legs to keep the circulation up. An hour later his temperature is down two degrees, and the heroic treatment is continued. In such cases of heat stroke there is always danger that the brain may be permanently affected. The patient may never be quite normal again or at least may be unusually susceptible to heat. It is important to get the temperature down *fast* before the brain cells are irreparably damaged.

Twenty minutes ago a well dressed man on Park Avenue reeled for a few moments, then fell unconscious in the street. Now as he lies in the emergency ward, his breathing is faint, his heart action weak. Something about the reddish color of his skin and the acid odor of his breath gives the doctor the clue he needs. He catheterizes the patient, obtains a specimen and performs a urinalysis. Sugar and acetone are found; the well dressed man is definitely diabetic. A hypodermic injection of insulin swiftly reduces the sugar in his body. Within two hours, even if the patient seems recovered, a second physician—a superior of the first—will visit the patient. This is a part of the Bellevue routine in all emergency cases. Daily, for the rest of his stay in the hospital, the patient's condition will be checked by the visiting physician and his intern staff during ward rounds.

Again the siren wails and the ambulance discharges the victim of an auto accident. He has a bad gash in his head, his breathing is stertorous, the pupils of his eyes are unequally dilated. Carefully the doctor finds a spot between two vertebrae in the small of the patient's back, inserts a hollow needle and draws off a small quantity of spinal fluid for diagnosis. It contains blood—a certain sign that the man has a fractured skull. Now in skull fractures, a localized irritation of the brain may be set up, which causes swelling. Since the bony framework of the head cannot expand, this internal swelling creates pressure within the skull. If the pressure becomes great enough it will affect the medullary centers of the brain which control breathing and heart action. Then the patient may die.

The doctor may now inject into a vein a sucrose solution which stimulates the kidneys, dehydrates the brain and thus reduces pressure inside the skull. If, through use of a portable x-ray apparatus, the doctor finds that this is a depressed fracture and his chief believes that an operation is necessary, he may rush the patient to the operating room. There the surgeon will relieve the pressure by lifting out pieces of broken bone. Or, if the blood has clotted between the outer membrane of the brain and the top of the skull, he may trephine the cranium—a nice piece of human carpentry. With a brace and bit he bores a series of holes in the skull and then sucks out the coagulated blood through a rubber tube. If all goes well, the patient will regain consciousness as soon as the pressure is relieved.

But to show you that all is not tragedy in the emergency ward, let's watch this handsome young Negro being sewn up. Though he has lost a great quantity of blood, he is very much alive. He has lacerations which run from his left ear down his cheek, across his nose and through his upper lip. Diagnosis: razor slashes in a Harlem brawl. Treatment: about twenty stitches, a nasty, painful business. Using the tiny, almost semicircular suture needle, the doctor has stitched his nose safely back in place. What's that the patient said? "Be careful of my mustache, Doc. I don't want it spoiled."

Is it any wonder that an appointment as intern at Bellevue is a prize every medical student aspires to win? Young doctors know that a few months spent in the emergency ward will give them more all-round experience than they'd otherwise get in a lifetime. Every case is different, a challenge to ingenuity and resourcefulness. Inevitably, the doctors and nurses become "hard boiled," but rarely calloused or indifferent. They perform their tasks swiftly, mercifully, yet without a trace of sentimentality. The emergency doctor does not care particularly who the patient is. He may be a gangster riddled with bullets, a chorus man who has swallowed iodine or a broker who has collapsed with a cerebral hemorrhage. It makes no difference to the doctor; he is a patient. Every possible measure is taken for his benefit.

Despite the desperate nature of emergency ward cases, the mortality rate last year was under 8 per cent. No doubt about it, the ward saves lives! What happens to those lives after they leave the Samaritan shelter of the hospital is not, as one young intern put it, "a legitimate subject for a ward doctor's inquiry." The emergency physician has no time to think about final objectives or the destiny of the crumpled lives that pass through his hands. His job is to stitch gaping arteries, extract jagged glass and flattened bullets, revive a flagging heart and patch up the would-be suicide for a speedy return to the world outside the hospital gates.

Underwood and Underwood

YOUR EYES—*what to do when in trouble*

WHEN MOST persons begin to have trouble with their sight, they are prone to attribute their difficulties to the need of eyeglasses. Those, on the other hand, who happen to be wearing glasses, suspect either a wrong fit or the need of changing them. It is true of course that in the largest number of instances properly fitted glasses do correct poor vision and relieve the accompanying symptoms of eyestrain. There are, however, numerous instances of failing vision, many of which terminate in blindness, that cannot be corrected by means of eyeglasses; they are disturbances due not to faulty focus but rather to disease.

The visual mechanism, the eyeballs with their muscular, nerve and brain connections, is not an optical instrument operating independently of the rest of the body. Being an integral part of the body as a whole, the visual mechanism is made up of the same living tissues and is subject to the same nervous and vascular influences. It must obtain its nourishment from the same general blood supply and must eliminate waste matter much in the same manner as any other organ of the body. For this reason, although the visual mechanism has its own specific function to perform, the normal action depends on the normal functioning of the body as a whole. When, however, the general body equilibrium is disturbed, as in tuberculosis, syphilis, diabetes or nephritis, to mention a few of the possibilities, the visual mechanism may and frequently does suffer injury with resulting loss of vision. The visual mechanism can thus be said to share with the rest of the body in health as well as in disease.

The prevalent notion among many persons that glasses are the first thing to try when sight begins to fail is fraught with danger and is responsible for much needless suffering and

By SAMUEL I. KAUFMAN

blindness. Eye physicians know of numerous instances in which people, under the impression that they need merely the "right kind of glasses" for their failing sight, have lost much valuable time shopping for and purchasing glasses from different sources but without relief, their vision becoming progressively worse. Later these people were found to suffer from some disease which required not glasses but medical or surgical treatment for its cure.

The competent eye physician, by virtue of his training and education, is aware of the various possible causes of failing sight. He will make sure of the presence or absence of disease or abnormality first, before correcting glasses are finally prescribed for people with failing vision.

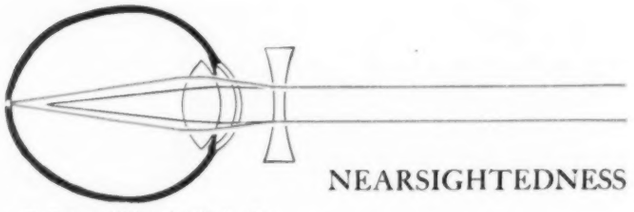
The general public must become aware of the fact that systemic diseases frequently cause visual disturbances. Indeed failing sight may be one of the earliest manifestations of such diseases.

There are many persons on the other hand who fall into the opposite error and decry glasses altogether. It is common to hear many of them say that glasses are unnecessary, in fact injurious to sight, condemning the wearer to depend on them for the rest of his life. They say the wearing of glasses is a pernicious habit and is to be avoided like the plague. Eye conditions such as nearsightedness, farsightedness and astigmatism, they are told, can be cured by means of special muscular exercises, thus eliminating the need of glasses.

It is not difficult to trace the origin of these absurd notions. These persons have come under the spell of alluring advertising propaganda of quacks who everywhere prey on the credulity of an unsuspecting public. The aversion to glasses on the part of women singles them out particularly as easy victims. It must be definitely recognized that, far from being a curse, eyeglasses are indeed a blessing, without which the greater number of people would be unable to cope with the demands made on their sight by modern conditions of life.

One frequently hears the question, Why are glasses so much more prevalent today than in former times among both young and old? It is of course true that before the era of modern civilization, glasses were worn by relatively few persons. But this is not surprising if we recall that not many could either read or write, nor did the prevailing mode of life make any great demands for accurate or precise vision. General culture, education and industry were on a low level of development. Most people lived in small settlements and followed an agricultural mode of life. Glasses were worn by those who followed the learned professions. Indeed the wearing of glasses was for this reason considered a mark of intellectuality, a notion carried over to our own day. But with the advent of civilization, with the invention of printing, with the wider diffusion of learning, with increased industrialization and mechanization of modern life, glasses came into general use because precise and accurate sight now became a universal necessity. Precise vision, however, requires eyes normal in form and structure. Of all the special sense organs the eyes are the most advanced in structure and function; but with few exceptions they fall short of today's requirements, the normally focusing eye being the exception rather than the rule.

Civilization, it would seem, caught nature by surprise. Our visual mechanism, although the highest achievement of evolution in point of complexity of structure and function, was nevertheless found wanting when confronted with the demands of modern civilization. Standards of vision which sufficed in the past were found deficient in the light of our present requirements. Nature, effecting its changes in form and structure of organs in response to the need



NEARSIGHTEDNESS

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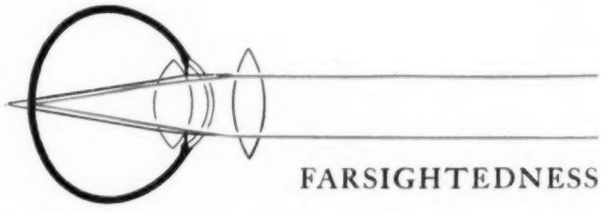
IN NEARSIGHTEDNESS THE IMAGE FALLS IN FRONT OF THE RETINA, SO A CONCAVE LENS IS USED FOR CORRECTION. THIS BENDS THE LIGHT RAYS APART JUST ENOUGH TO FOCUS THEM EXACTLY ON THE RETINA. NEARSIGHTED PERSONS SHOULD WEAR THEIR GLASSES AT ALL TIMES. AS THEY GET OLDER THEY BECOME LESS NEARSIGHTED AND REQUIRE A CHANGE OF GLASSES FROM TIME TO TIME.



FARSIGHTEDNESS

IN FARSIGHTEDNESS THE IMAGE FALLS BEHIND THE RETINA, SO A CONVEX LENS IS NEEDED TO BEND THE LIGHT RAYS TOGETHER ENOUGH TO FOCUS THEM EXACTLY ON THE RETINA. SOME FARSIGHTED PEOPLE MUST WEAR GLASSES AT ALL TIMES; OTHERS REQUIRE THEM ONLY FOR READING OR CLOSE WORK. MANY NEED TWO PAIRS OF GLASSES: ONE FOR DISTANCE AND A STRONGER PAIR FOR READING.

THE COLORED LINES ARE LIGHT RAYS WHICH FOCUS CORRECTLY WHEN REFRACTED THROUGH LENSES.

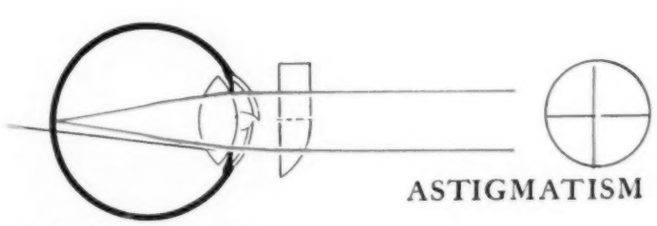
of adaptation to changing environment, generally does so very slowly—even over periods of millions of years. Small wonder that our civilization, a product of only a few centuries, should find the human eye ill prepared for its exacting work. The imperative urge for better vision brought eyeglasses into general use, just as it led to the invention of the microscope and telescope. Those people whose eyes cannot focus properly because of faulty shape, find in suitable glasses a valuable aid to better and more comfortable vision.

It is thought by many persons that glasses are necessary only for those who cannot see well at a distance. People generally believe that the ability to recognize objects at a distance bespeaks normal vision. This is far from being correct. Of all people who do or should wear glasses, only a small number, the nearsighted, are unable to see at a distance. By far the greater number, who are generally farsighted, do see well at a distance; yet in spite of their sharp vision, glasses are necessary for them for the sake of comfortable vision. While it is true that normal vision implies the ability to see far and near and at all points between these, normal vision also implies that this ability should be accomplished with ease and without eyestrain. Eyestrain with its attendant symptoms of headache, dizziness and pain, whether felt immediately in or near the eyes or, as frequently happens, some distance away, calls for correcting glasses for its relief.

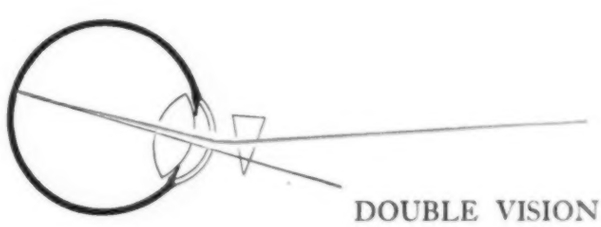
All cases of failing vision fall into two general divisions: In the first belong all those that require glasses for correction and in the second, all those that need either medical or surgical treatment for relief.

At birth, the eyes are short, corresponding to the small size of the child's body; in other words, we are all born farsighted. As the child's body grows in size, so do the eyeballs. Their growth continues until the eyeball reaches the necessary length, and further growth stops. The eyeball being now of proper length is said to be optically normal and will therefore focus light rays correctly on the retina. Such a happy outcome, however, is the exception, not the rule. Only a small number of persons have optically normal eyes. What more frequently happens is that the growth of the eyeball stops short, and the condition of farsightedness results; or growth continues beyond the required length, and there develops the condition of nearsightedness. Since it is unconditionally necessary for good vision that the eyeball be of proper length, the first effect of a "short eye," for example, is blurred and indistinct vision. Blurred vision is not the only consequence however; soon other difficulties arise to torment the individual whose eyes fall short in their dimensions. Let us consider the short, or farsighted, eyes. Those whose eyes are extremely short or whose farsightedness is of high degree and in whom the condition is not corrected by means of glasses usually reconcile themselves to blurred vision, for any attempt to improve on it will be futile. Those people, on the other hand, whose eyes are only a trifle short or slightly farsighted attempt to overcome their blurred vision and frequently succeed. This accounts for the well known fact that most farsighted people see well at a distance, but it also accounts for the physical and mental distress caused by the resulting eyestrain.

In the farsighted or short eye, correction can be made by changing the shape of the human lens. There is in the eyeball a muscle which encircles the crystalline lens. When this muscle contracts, the lens automatically changes to a more spherical shape, thus in effect lengthening the eyeball. The increased curvature of the lens makes up for the shortness of the eyeball. This



ASTIGMATISM



DOUBLE VISION

Underwood & Underwood

SINCE THE MERIDIANS OF THE CORNEA ARE UNEQUALLY CURVED, A CYLINDRIC LENS IS USED. THIS CORRECTS THE MERIDIANS WHICH ARE OUT OF FOCUS. HERE THE UPPER LIGHT RAY IS PASSING THROUGH THE NORMALLY CURVED CORNEA AND FOCUSES CORRECTLY ON THE RETINA. IN THIS PORTION, THE LENS IS PLANE, SO AS TO CAUSE NO REFRACTION. THE LOWER LIGHT RAY IS PASSING THROUGH FLATTENED CORNEA AND FOCUSES BEHIND THE RETINA. HERE THE LENS IS CONVEX AS FOR THE FARSIGHTED EYE. A CYLINDRIC LENS RELIEVES MOST CASES OF ASTIGMATISM COMPLETELY.

FOR DOUBLE VISION DUE TO SQUINT, A PRISMATIC LENS MAY PROVE HELPFUL. THE APEX OF THE PRISM IS PLACED IN THE DIRECTION TOWARD WHICH THE EYE TURNS. THIS BENDS THE RAYS OF LIGHT AWAY FROM THE APEX AND TOWARD THE BASE OF THE PRISM. PRISMS CAN BE GROUND INTO LENSES SO AS TO CORRECT THE ERRORS OF REFRACTION.

THE LIGHT RAYS REFRACTED THROUGH A SPECIALLY ADAPTED LENS FALL EXACTLY ON THE RETINA.

accounts for the fact that most farsighted people do see far without the aid of glasses, but it also explains why these persons suffer from pain, headache and other symptoms of eyestrain. The circular ciliary muscle which farsighted people must bring into action in order to see clearly for distance was not intended by nature for this purpose. People whose eyes are of normal length need not use this muscle to be able to see for distance, because their eyes can focus light rays without any muscular effort on the part of the eye. The normal use of this muscle is reserved for near vision, as in reading print where a certain amount of accommodation is necessary. Farsighted persons, however, unless corrected by means of glasses must use this muscular mechanism unconsciously, even when looking at distant objects. It is obvious that the use of this delicate muscle under such circumstances throws an extra burden on the visual mechanism. To obtain an idea of the added work, one needs to be reminded that in reading print for several minutes the ciliary muscle is called on to perform a thousand or more separate movements. If this is continued for hours, days and weeks, one can readily see what an enormous strain such eyes must undergo. The ciliary muscle is richly supplied with nerves which in turn are connected with the brain. Is it any wonder, then, that farsighted people, in spite of their good sight for distance, should suffer from headaches, pain, inflamed lids, sties or even general physical and mental disturbance, to mention only a few of the effects of an overburdened visual mechanism. This is the main reason why farsighted people either wear or should wear correcting glasses. Glasses correct the shortness of the eyeball and enable the eyes to focus light accurately without any muscular effort which must otherwise be made at the cost of much physical and mental suffering.

Eyestrain can still further be aggravated when farsighted or nearsighted people attempt to use their eyes for near vision. Near vision is normally made possible by two closely related phenomena; as accommodation is effected by the contraction of the ciliary muscle which allows the crystalline lens to change its shape and thus become in effect stronger, this adjustment is necessary in order to be able to see near objects distinctly. Convergence is effected by the pull of each eye inward so that the visual axes of the eyes meet on the object of attention, and it enables us to see objects singly although the eyes receive two separate images of the same object. But for convergence, double vision would result because the mind would then receive two visual impressions of the same object. By converging the eyes so that the visual axes are both directed on the object of attention, the image received by each eye is now so situated in relation to the other that they can now be easily fused into one by the mind. These two processes, so necessary in near vision, are not only closely related in function but also in degree, so that for a given amount of accommodation, there is a corresponding amount of convergence. In the interest of comfortable near vision it is important that this normal relationship be maintained. Since, however, the farsighted person habitually overaccommodates, while the nearsighted person overconverges, a dissociaton of these two functons takes place which frequently causes some of the worst forms of eyestrain.

The visual mechanism, comprising the eyeballs, the optic nerves, the retinas, the eye muscles and the visual portion of the brain, is in reality one system, and even in performing the simplest act it functions as a unit. All its various parts are so interrelated that if one is defective the resulting disturbance is shared in greater or less degree by the other parts of the mechanism. This is especially true when the eyeballs are defective as in nearsightedness, farsightedness or astigmatism. A few examples will serve to illustrate this point. Nearsightedness, caused by an already elongated eyeball, tends to perpetuate the conditions for its further increase by compelling habitual overconvergence. Since convergence is effected by an inward pull on the coats of the eyeball the resulting stretching of the walls of the eye after a period of time, especially in the young can

(Continued on page 73)

Warren Boyer

To a Blind Child—

What more than other mothers' is my task?
They, too, guide little feet and play small games
And read aloud of fairies and of elves.
What more shall I?

Because your world is peopled with our voices
Mine shall be gentle, and I shall restrain
Each pitying word;
But, rather, speak of Homer and of Milton,
Of all the great blind men the world reveres.

I shall require, in childish bumps and bruises,
That you be brave;
That you may grow in valor as in stature—
You will have need of bravery, my son.

I shall laugh often that you may learn laughter,
And I shall sing, to teach your small lips song;
I shall not make you lean upon my eyesight
But teach your fingers and your ears to see.

—Frances Ruth Davidson

MANY FOREIGN GOVERNMENTS ISSUE "SEMIPOSTALS," FROM THE SALE OF WHICH FUNDS ARE DERIVED TO FIGHT DISEASE: 1, PRINTED BY RUSSIA FOR THE RELIEF OF FAMINE; 2, BY LUXEMBURG FOR CHILD WELFARE WORK; 3, BY FRANCE FOR CHILDREN OF THE UNEMPLOYED; 4, PRINTED BY DENMARK AS AN ANTICANCER STAMP; 5, BY CZECHOSLOVAKIA FOR THE RED CROSS; 6, BY BELGIUM FOR THE FLOOD SUFFERERS, AND 7, BY AUSTRIA AS AN ANTITUBERCULOSIS POSTAGE STAMP.

By MONTGOMERY MULFORD

THERE ARE certain postage stamps which are regularly printed by foreign governments that actually help blot out disease. Stamp collectors refer to such a group of stamps as semipostals. The United States has never issued such a stamp—a postal adhesive sold for a premium by the government, with a surtax for the benefit of some specific or general charity. Such stamps pay "part postage"; hence their names.

When such a stamp is purchased the purchaser may rest assured that a part of the proceeds realized from it may go to assist in the fight against cancer or tuberculosis, to help orphans or give children a better chance, to relieve a famine or contribute to such an organization as the Red Cross.

The stamp collector then may take particular pride in knowing that by following his hobby he has aided in the elimination of disease and given indigent children as well as adults a better chance in life.

The fight against cancer has been noteworthy; and to assist in the drive to cure cancer, France in 1938, Denmark in 1929 and Sweden in 1928 each issued stamps, the proceeds from which went for just such work.

The antituberculosis fight has been long, and several countries have issued stamps to assist the fight against this dread scourge. Belgium has several issues with a surtax which goes to the antituberculosis funds. Estonia issued other similar stamps in 1933, as did Greece in 1934, the Netherlands in 1923 and New Zealand in 1929.

To help the Red Cross a number of nations have produced semipostal stamps: Brazil did in 1935, Czechoslovakia in 1923, Estonia in 1926 and 1931, Finland in 1931, 1932 and 1935, and the Netherlands in 1927.

The children and orphans have been aided by numerous stamp issues from several different countries. Among these are Austria, in an issue of 1928; Belgium in 1935; Lithuania, 1926; Mexico, 1929; the Netherlands for several years; Russia, between 1922 and 1930, and Turkey in 1932.

Disease is caused by a number of things, including undernourishment, unemployment, floods and other suffering. Consequently semipostal stamps have appeared to aid victims of all these tragedies. For example, Austria (1931), France (1938) as well as the Netherlands (1934) issued stamps to help the unemployed. Flood sufferers have been assisted by semipostal stamp sales from countries such as Austria (1921), Belgium (1926) and Russia (1924). Russia issued further semipostals for the Volga famine in 1921.

These are picturesque as well as worthwhile stamps. They are issues with a reason for existing. They serve double duty, for they pay postage and assist sufferers. Not that any other group of stamps is less picturesque or worthy but semipostal stamps have a definite humanitarian purpose and are issued in an attempt to make this a better world in which to live.

Know Thyself

the words of a great philosopher are echoed by E. E. VEIT

HUMAN PSYCHOLOGY is the study of the human mind and the way it works. The behavior of man is considered with particular reference to its mental or psychologic aspects. The motives and driving forces of thought and action are analyzed and interpreted; their mechanisms and effectiveness are considered. Dynamic psychology is an attempt to understand why we behave like human beings.

The human body is a physical object consisting of material substances. We can see it, touch it, measure it, weigh it; surgeons operate on it.

But what is the human mind? It is not the brain, since the brain is a material structure, visible to the naked eye. The mind is something nonmaterial. It cannot be seen or touched, measured or weighed. Is it spiritual? To be spiritual does not mean to be unreal, for the spirit is the important and vital thing in life.

The body and brain are related closely and intimately. Often the body influences the mind, as in the case of fever in disease. Even such a small disturbance as indigestion will affect the mind. One may become curt, snappy,

H. Armstrong Roberts

CONFLICTS ARE FREQUENTLY ENCOUNTERED IN THE WORLD OF TODAY, AND A COMMON WAY OF MEETING THEM IS BY INDULGING IN EXCESSIVE EMOTION.

irritable and difficult. But pleasant environments may influence the physiologic processes. Beauty soothes, quiets, relaxes. Surroundings in which truth, goodness and kindness predominate foster happiness and peace of mind. The body functions more harmoniously when love dominates the mind than it does when hate rules. That lighter side of life, which includes play, laughter and amusement, oils the bearings of the body through the mind, decreases friction and makes our machinery run more smoothly. One of the functions of art in general is to produce favorable bodily reactions.

No one can possibly have a mind and a mental life which are completely and entirely in harmony. Picture the mind as an orchestra consisting of many instruments. It is not possible that a false note will not be played at some time or another; so with the mind. Life would become monotonous and boresome if things always flowed in the same channels; but sometimes they clash, portending conflict and struggle. Troubles are rooted in conflicts that have not been faced. Look under the surface, and try to uncover the very beginnings. The major conflict of life and the frequent cause of nervousness is the lack of balance among the three fundamental complexes: The ego or self complex, the sex complex and the herd or social complex. The conflict of the first, ambition, pride and self assertion, with the second, sex, in all its implications and the conflict of either or both of these with the third, the rules and requirements of society and the desire to be freely accepted as a member of the herd—these three broad drives and their conflicts form the basis and are the motif of most of the dramas of novels and life itself.

Conflict, although inevitable for every adult human being, is a source of dissatisfaction and unhappiness. When there is conflict, there is certainly tension, uneasiness and restlessness; frequently there is irritability and nervousness and even nervous disorder if the conflict reaches a certain degree. The conflict is not always clearly recognized by us, just as many of our own tendencies, such as biases or prejudices, are not fully recognized as such. The mind attempts to reach a point of equilibrium by balancing the elements of conflict. It tries to resolve it. By so doing it reaches a working arrangement or compromise of opposing tendencies. Peace and satisfaction, at least temporarily, are purchased. The wild animal flees from danger. So does the human being. But he does not flee physically. He may disguise or hide himself or throw his pursuers off the track by a ruse. So, also, with mental dangers, the mind may employ a certain cunning or stratagem in meeting them. The mind has certain typical methods of meeting apparent danger, avoiding unpleasant situations and solving perplexing problems. They are automatic mental manipulations and compensations of ideas and tendencies in the face of psychologic stresses, just as automatic as the body's readjustment to maintain its physical equilibrium. There are ways of arriving at this state of security common to all of us and easily recognizable. Typical ways of meeting conflict are:

1. Regression, or going backward: In psychology, it signifies a return to a former, somewhat primitive and rather childish type of reaction. Human beings behave regressively when they are "put out," violently angry or "sore" or when they "lose their heads." When desire is blocked, when they are irritated, disappointed or ashamed, they are tempted to express themselves emotionally rather than rationally. An intelligent woman from time to time forgets her intelligence and her usual good judgment and resorts to tears when faced with trivial difficulties, such as those concerning the servants. Though we may "blow off" steam, even after we have "lost our heads" the same problem is still in front of us. The regressive action is ineffective and often humiliating. In regression, there is an inordinate or excessive emotional response. It is out of all proportion to the stimulus and in the long run is not useful.

2. Extroversion, or flight into excessive or feverish activity: A frequent example in a mild form is the person who must continually pace about the room when he is thinking over a difficult problem. Extroverts are "outward" people. They are bright, cheerful, sociable, active; these are the executives and effective people who get routine things done in the world. If they are with you, they are strong for you; if against you, they are bitter. It is not hard to tell where they stand on an issue; but their feelings are often transitory. They do not usually hold grudges; they get over their antagonisms and their enthusiasms. They are not usually reflective and can decide things readily when others waver.

3. Introversion: The person who tends to be a thinker, rather than a doer, is guilty of introversion, turning in of the mind or self onto its own problems. The introvert gets his chief pleasure from within himself. The introvert is inclined to be cold, apparently gloomy, unsociable and rather inactive. Introverts are planners, theorists and usually visionaries.

4. Rationalization by which we camouflage ourselves and attempt to justify our actions before the "Bar of Public Opinion": These attempts often merge into self deception, and this method is called rationalization. The habit of thinking gives plausible reasons rather than actual ones for our thoughts and behavior.

5. Segregation, or development of logic-tight compartments: Logic-tight compartments involve the frequent or close occurrence in the mind of thoughts and ideas, plans and ten-

dencies, desires and drives that are inconsistent and contradictory. The individual holds ideas that are contradictory. For instance, a woman who is extremely active in the interests of underprivileged girls plans wholesome living conditions and relaxations and diversions for them; and for this purpose, she contributes much time, money and energy. On the other hand, she is personally a hard employer. She drives her own servants and is very exacting as to their work and hours.

6. Repression, the art of forgetting: There are two types of forgetting; namely, passive and active. The common occurrences of life that have little more than a casual meaning for us die away in memory. They are sunk almost without a trace. Finally it becomes difficult and even impossible to recall them at all. This is passive forgetting. When we forget to pay a bill that we think is exorbitant, send checks that are not signed, dismiss and put things in the background, this is active forgetting.

7. Dissociation, the separation of ideas, emotions or tendencies into different groups or complexes that have reached no working agreement among themselves: When a person "loses his head" in the midst of a casual conversation, then some deep and hidden emotion is coming to light. We have a "sensitive spot." These mild explosions should lead us to become conscious of our sensitive tendencies and help us to modify them.

8. Neurasthenia, or so-called nervous exhaustion: This is largely the fatigue resulting from mental cross purposes. The cause is not actual fatigue and exhaustion of the nerves; it is fatigue and exhaustion as a result of excessive emotion. These persons have usually had their lives planned and their decisions made for them, so when the time comes for them to act for themselves, they are "sunk." It will take the time and patience of a good friend, teacher or priest to help these people literally to stand on their own feet.

9. Hysteria, almost complete physical disability: A person affected with hysteria may have such manifestations as blindness and inability to move his legs. This incapacity is functional, not organic. A nurse, for example, may be unable to move her arms when she is ordered to scrub the bloody floor of the operating room. In reality, she is repulsed by the sight of blood. She cannot offer this as an excuse, so she offers the plausible excuse that her arms are becoming paralyzed.

10. Projection, the avoidance of recognizing our deficiencies and faults by attributing them to others or to the nature of things: In this way, we may deny our weaknesses or responsibilities. It is always our tools and not ourselves that make our tasks unsatisfactory.

11. Identification, attributing to ourselves the ideals or virtues of other people: The child "idealizes" his parents and teachers. To overdevelop identification, confusion of the ideal and the real takes place, and now we are only a few steps from those magnates and millionaires—of the insane asylum. Clear thinking in the small things of life is an excellent preventive against departures into unreality.

12. Sense of inferiority, an idea or a set of ideas, strongly bound together emotionally, that makes us feel inferior or less than our fellow men: We may be clearly aware of our personal belittlement; we may recognize it faintly, or we may be totally unconscious of it, though it obviously expresses itself in our everyday behavior. Physical incapacity may lead to this sense of inferiority. The victim must either overcome this feeling or be overcome by it. He must first realize his condition, then try to overcome it either by himself or with the assistance of a physician trained in psychotherapy.

13. Sublimation, the utilization of instincts, desires and tendencies in ways approved by self and by society: This is really a process of education of instincts, desires and tendencies so that they will work according to acceptable and accepted standards. In sublimation there is a refinement of the crude, a raising to higher personal and social levels. We are endowed with an almost infinite number of interests and desires which represent capacity for accomplishment.

Civilization today fosters cooperation and the development of science, which are the rocks on which modern society rests. The diversion of excess or leisure energy from these broad activities to the more elementary ones strikes at the very foundations of society and is subversive of the best interests of the individual. With the present organization of society an adequate amount of sociability, activities in the interests of society and a certain degree of deference to the herd opinion are not only signs, but guaranties, of mental health. The individual who is not reacting reasonably well to his fellow man and the social environment is under a serious handicap for his own personal development and mental health. Thus, broadly speaking, sublimation as a socializing process is woven into the fabric of our everyday lives.

It may be taken as axiomatic that every one of us will frequently meet the necessity for sublimation, not only in great crises but constantly in the trivialities of life. It is fortunate for us and society that many of our desires must be denied fulfilment. Each of us therefore is left with a considerable amount of energy on hand which must be distributed. It cannot be made to disappear; it must be utilized, wisely or unwisely. In a sense, life is like a stream: If its outlet is dammed in one direction, it will seek another outlet or will overflow. Each person must make the best of his abilities in proportion to his capacities.

4-H CLUBS BUILD HEALTH

I pledge my head to clearer thinking, my heart to greater loyalty, my hands to larger service, my health to better living, for my club, my community, my country

—The 4-H Club Pledge

By LOU TREGONING

EARLY IN DECEMBER, 1,600 clear eyed, eager looking boys and girls, marching in two orderly battalions, attracted the attention of the hurry-scurry throng of office goers and Christmas shoppers in downtown Chicago. Glances of curiosity mingled with those of interest and admiration, for in the last two or three years, the "Windy City" has come to know that these are the 4-H winners attending their annual Club Congress.

They came from forty-five states, and all during the first week in December they thronged the Art Institute, the Field Museum, spent some time in some of the large industrial plants finding out how wire is made, how farm machinery is manufactured and how a great mail order house conducts its business. Between times, they attended banquets in some of the prominent hotels, listening to talks by world renowned men and women, were entertained by the best of music and drama and saw at least one stage play during the week. But the program wasn't all sight-seeing and pleasure, for these state winners came to compete in judging contests, style reviews, canning, home furnishing and grain exhibits and that greatest of all contests, health.

The health honor is the most coveted of all; perhaps it is the most difficult to achieve. A boy and a girl between the ages of 15 and 21, winners in contests in their own state, county and club, each year win this award from the other forty-four states entered in this national contest. Each and every one of the contestants has waged a daily battle for many months to attain the best in health, and the winners have

well earned this merit. In fact, most of them have been making consistent health improvements for several years.

It has meant eating a certain amount of cereal, vegetables, fruits, carbohydrates, proteins and dairy products daily; sleeping on an average of from eight to ten hours every night; exercising; maintaining good posture; checking and rechecking improvements, and having a zest for right living. They have been examined in club contests, have checked defects and made improvements; then they entered the county competition and again made corrections; they competed in the state contests and made improvements to enter the national one held in Chicago.

The boys and girls go into a clinic where doctors, surgeons, dentists and specialists examine them thoroughly. This national clinic was made possible through the Elizabeth McCormick Memorial Fund and through the cooperation of Dr. Caroline Hedger, who made the first examinations.

The minutely detailed examination includes eye, ear, throat and nose, lungs and heart, bone formation, posture and feet. Weight and measures are taken, and there are also mental, emotional and personality tests. Such laboratory tests are made as examining the blood for cell count and color and for clues to nutritive deficiencies and oxygen carrying power; and specimens of urine are tested for albumin and sugar.

The doctors and dentists study and check carefully the answers to the thirty-seven questions on the questionnaire which each boy and girl has answered concerning his or her food habits; number of sleeping hours; regular elimination, and general health conditions, such as colds, headaches, daily exercises, games, physical examinations, corrections made following examinations, inches of growth attained during the last year and number of pounds gained. It is interesting to see how much at home these boys and girls are with the medical staff. It seems that out of these contests will develop not only the desire for good health but a permanent friendship for the family doctor and his profession.

After hours of checking and rechecking, the doctors decide the winners. The committee of 4-H leaders notify the state leaders of the winning states so they may prepare the boys and girls for the occasion of announcing the winners. These boys and girls can keep secrets, for their best friends in the group will know nothing about the honor until the winners are presented to the entire delegation, the occasion usually being the 4-H'ers own banquet. In former years, there were but two health winners, a boy and a girl, but competition is now so keen and rating so close that several blue ribbon winners have taken the place of the once so-called champion health boy and girl.

One finds fine personalities, beautiful poise and mental balance in these health winners, who sincerely believe that health is one of the first attributes for success. When one of the blue ribbon winners in 1937 was questioned about the sports and food she most enjoyed, she said, "I like swimming, horseback riding, golf and tennis"—quite a variety for a rural girl. "I like all kinds of vegetables; but carrots and lettuce are my favorites, and I do not think spinach is so terrible. I attribute much of my good health to following 4-H rules; but I am fortunate in inheriting a good constitution from my parents, who have also encouraged me in wholesome living."

The last part of that statement reveals how these young people give credit to their parents and their club. Of course, they are proud to win this coveted honor; but through club work they have learned that they can achieve little alone. Somewhere back along the line have been parents, brothers and sisters, club leaders, club members and the people of their community, encouraging, sacrificing and helping. So when they win, they are happy to carry this honor back to their state and to their own club. The principles of 4-H have also made them realize that every added honor brings with it greater responsibility. They must not only maintain their own good health but help others attain their measure and be an example for other members. This responsibility has acted as a kind of lever or balance.

There are thousands of other winners in this great health program: those who won for their counties at state fairs, those who won for their clubs in county fairs or achievement days, and the boys and girls in the clubs who made definite improvements in health during the year. Recognition is also given in each county to the boy and girl who have made the greatest improvement since the previous contest. Many of the state and county examinations are made in clinics composed of several doctors, the dentist and nurses. Iowa had the first state contest as early as 1920, and here a well known doctor paved the way for the formation of a clinic for handling the annual state contest and some of the county contests.

When a contest is over, the entrants are never given scores but are told about their defects and what to do to correct them. This is done from the state contest down to the individual club; then the club studies the list and decides what corrections will form the main part of the health program for the coming year. Closely allied with the health program is the one on foods, which includes a dietary score card and height and weight chart; the home furnishing includes ventilation, restful beds and sanitation, while

Photographic Illustrations, Inc.

HERE ARE THE FOUR HEALTHIEST GIRLS AND THE FOUR HEALTHIEST BOYS, NATIONAL CHAMPIONS, AT THE RECENT 4-H CLUB CONGRESS HELD AT CHICAGO. THREE OF THE FOUR BOYS ARE SEVENTEEN YEARS OLD; THE OTHER IS EIGHTEEN. THREE OF THE GIRLS ARE FIFTEEN; THE OTHER IS SIXTEEN.

the clothing course includes comfortable, well fitted clothes, good shoes and posture. In addition to these, music, drama and recreation form a part of the program.

If defects are found to be so serious as to need the attention of a physician, the parents are called in and the condition is explained to them. In most cases they are convinced that the difficulty should be corrected, and they give their full cooperation. Some serious difficulties have been corrected before it was too late, and some fine improvements have come out of the program.

In one of the first contests, one entrant was found to be suffering from incipient tuberculosis. The doctor gave her instructions on how to combat the disease and also enlightened her club leader and parents, with the result that she regained vibrant health. Another member had a spinal curvature and was told by the doctor how to correct it. This girl did exercises faithfully for three years and came over a hundred miles for her annual check-up—so anxious were she and her parents to know results. Many instances of this type could be related.

Then, there are the boy and girl who didn't have such a good start in life but have made decided improvements by doing the things that make for better health. They might never have been interested if it hadn't been for their 4-H club. Those who have gone beyond club age (21 years) and have set up homes of their own are starting their own children with good constitutions and an annual check-up by a good doctor. In fact, babies of former health contestants appear in many health contests.

At the present moment, if you could look back of the curtain in each state, you would find these health-conscious young people already making daily improvements for the most important contest of the coming year. However, contests are but a means to an end, and 4-H will go on building a desire for better health in every boy and girl taking part in that program.

Medicine, Moonshine and the McFlannels

BETWEEN THEM TEN YEAR OLD DAISYETTA WHIMPERED IN DESPAIR, "OH, PA, I CAN STILL FEEL IT AGOIN' DOWN. WILL I DIE, PA?"

By MARY HOLDSWORTH BUTT

IN ANY EMERGENCY, Mrs. McFlannel could be counted on to argue. "I tell you I was under the influence of a doctor for ten years, and there didn't no good come of it. She's done swallered it, and there ain't nothin' nobody can do."

"Get in, Missus, get in!" Mr. McFlannel's 200 pounds was already settling behind the steering wheel.

The Missus got in. Between them 10 year old Daisyetta whimpered in despair, "Oh, Pa, I can still feel it agoin' down. Will I die, Pa?"

Mr. McFlannel's kindly face quivered with emotion. "No, honey, Miz Luce'll know what to do. I ain't never seen nothin' stump her yet."

The truck gained the highway with a burst of speed that even the most optimistic onlooker would have thought impossible. Older than Daisyetta, it was the only member of the McFlannel tribe that was never neglected. Money for medical care there never was; money for food there might not be; but the McFlannels never suffered the lack of gasoline. Mr. McFlannel had been known to work for a dollar a day when that catastrophe stared them in the face.

Ten minutes later Mrs. Luce, grown gray in the service of Cameron county, closed her desk and said to her newly acquired assistant, "It's days like this that make public health nursing a man-sized job. I don't usually begin at 6 o'clock in the morning. Babies are only a sideline in our work, but I couldn't give Conchita advice for six months and refuse to go to her this morning."

The assistant was young, and work on the Texas border was not what she had expected.

"I said I wanted to follow you everywhere for one day, but I'm dead on my feet. We've been going for exactly twelve hours."

A heavy footfall on the stairway leading to the office interrupted them. Mrs. Luce

caught a glimpse of faded blue overalls. "Mr. McFlannel," she whispered to her assistant.

"Oh, Miz Luce, Miz Luce, Daisyetter swallered a tack. She's right out here in front in the truck. She jest keeps a-coughin' and a-coughin'."

Weariness fell from the county nurse's shoulders, replaced by concern for any child in distress. In a moment she had her telephone in her hand. "I'll try to catch Dr. Edgerly in his office. We'll have to x-ray her to find out where it is." Mrs. Luce knew it was useless to add to the McFlannel distress by telling them that Daisyetta's coughin' and coughin' might indicate serious trouble. Dr. Edgerly was in. Yes, he knew the McFlannels. Yes, he would give Daisyetta an x-ray examination, although he knew that he would never get the cost of his x-ray plates. It may be the law of Hippocrates, or it may be the milk of human kindness, but there are always doctors willing to do what can be done in such an emergency.

Seven o'clock found Mr. and Mrs. McFlannel and the two nurses still waiting in Dr. Edgerly's office. Daisyetta was quieter now. Her thin, pale little face no longer twitched with the hysteria that had possessed her an hour before, and Mrs. McFlannel had recovered her usual composure to the extent that she could complain bitterly about the doctor. "Ain't he slow, Mack?" she whined. "I ain't never seen a doctor yet but that'd jest as soon keep you waiting as not."

Mr. McFlannel was inclined to be more reasonable. "But them pitchers has got to be made 'fore he can tell where that tack is."

Mrs. McFlannel ran her hand nervously through her new permanent and snorted as loud a snort as her hundred pounds allowed. "It's in her stummick, and him making pitchers of her chest! But you can't tell him nothing; he knows it all already."

Daisyetta interrupted this discussion of Dr. Edgerly's shortcomings. Against her will she had been taught to read, and in the past fifteen minutes she had puzzled out the pronunciation of a word in the sign on the waiting room door, "Pa, what's a pe-di-a-tri-cian?"

Mr. McFlannel had no objection to contributing to his children's education, provided that the contribution did not involve any physical effort. "A pediatrician is a foot doctor, Daisyetter."

Mrs. McFlannel added, "These here doctors try to get money out of you every way they can. If it ain't nothing else the matter it's your feet."

Inside his office, Dr. Edgerly was talking to Dr. Jones in Brownsville, twenty-five miles away, "I'm sorry, Jim, but you've got the only bronchoscope in the valley, and if that tack works down any further it is going to be hard to get. I felt sure you'd be afraid to risk waiting till morning. Well, the county nurse will bring them down as fast as she can. I'll call the commissioner of this precinct to make sure the hospital will get a few dollars for the operating room. You'll never get a cent out of the family."

In the waiting room, Mrs. Luce was explaining that the tack was lodged in Daisyetta's lungs and that it was safer to have it removed at once.

In Brownsville, Dr. Jones put in a call for Dr. Lanham in McAllen, 65 miles up the Rio Grande valley. Border doctors are a long way from medical centers, but they make an effort to study and work together in order that they may give their patients the benefit of the swift movement of the scientific and medical world of today. Dr. Lanham, president of the Tri-County Medical Association, was disappointed, as well as perturbed, for Dr. Jones was to have been the speaker at the association meeting that night. Now, at 7 o'clock, a substitute must be provided. He made a last effort to persuade Dr. Jones to come. "I know men who are coming from the far end of Zapata county to hear your paper tonight. It's too late to stop them. Can't some one else get the tack for you?"

"Edgerly tells me that the pictures show it to be just where I can catch hold of it without any trouble. If there were another bronchoscope in the valley, I wouldn't throw you down."

Dr. Jones hung up the receiver with a sigh. He had gone east to see a famous physician display his skill with the bronchoscope, and he had looked forward with pleasure to telling his valley colleagues about this work. Again he picked up the telephone, this time to advise the hospital of Daisyetta's coming. Everything must be in readiness and the anesthetist at hand to put Daisyetta to sleep.

Ten o'clock found Mr. and Mrs. McFlannel sitting just outside the door of the Santa Rosa Hospital operating room.

"He ain't no faster than Edgerly. It wouldn't surprise me a bit if he pushed it right on down into her stummick," said Mrs. McFlannel.

Mr. McFlannel shifted his tobacco from left cheek to right. "The pore little thing's had more'n her share of trouble, and I'm afraid of these doctors. Maybe we best let that tack be. She might've coughed it up anyway. You know, I jest don't believe her eyes have ever been the same since Dr. Hackett diluted 'em to fit her glasses. I never did believe all that dilutin' was necessary—all they want is the money."

Inside the operating room the situation was tense. Daisyetta's unwashed little body lay limp on the operating table, the head hanging off the end toward Dr. Jones. The doctor had pushed away his stool and for the past hour had worked on his knees. A written description of bronchoscopy sounds very simple, but sometimes the reality is quite different. The stillness of the

room was broken now and again by a command or a question from one of the doctors. Usually it was two words, "Suction, please," and again, "Suction." Once the anesthetist halted proceedings with a curt, "She's not breathing." Deftly the attending nurses obeyed every command.

Mrs. Luce leaned against a far wall and reviewed in brief the ten years of Daisyetta's life—the long siege with the rickets; her struggle with diphtheria, because her parents had refused to let her have the preventive serum when she was definitely exposed to the disease; her long drawn-out suffering with a broken leg, received when she was attempting to "hitch-hike" her way into town. Mrs. Luce smiled weakly at the memory of one of Mrs. McFlannel's comments on that incident—a comment that had become famous in the county health unit: "I know the county nurse will be a-tellin' us not to let Daisyetter high-jack her way into town, but lan' sakes, you can't expect that child to walk a mile every time she wants to go to town, with all them cars a-passin'. I never could see anything wrong with high-jackin' iffen you jest stand off the pavement."

The smile was only fleeting because Mrs. Luce was attached to Daisyetta, and now she wondered whether medical science were to snatch her back again from the very jaws of death. Her reverie was interrupted by Dr. Jones's voice booming, "Thank God, I've got it." Dr. Jones held an ordinary carpet tack in his hand. The anesthetist felt of Daisyetta's pulse. "Perfectly steady now," he announced.

Mrs. Luce slipped out to tell the waiting McFlannels.

"Well, he was long enough about it," commented Daisyetta's mother. "We was just about ready to take her an' go home." Mrs. Luce looked at them a moment, her sense of humor struggling with her rising indignation.

"How long before we can take her outa here? Would we have time to get us a hamburger?"

"HOW LONG BEFORE WE CAN TAKE HER OUTA HERE? WOULD WE HAVE TIME TO GET US A HAMBURGER?"

"I'm sure she can't go tonight." Mrs. Luce was positive on this point. "After a day or two here, she'll be all right."

The doctor came out of the operating room mopping his face, closely followed by the nurse, wheeling Daisyetta's still form to the charity ward. He still held the tack in his hand. "Think I'll keep it for a souvenir," he remarked as he passed down the hallway.

"He might have give it to us," said Mrs. McFlannel. "You'd a-thought it was his kid and not ourn that had swallered it; but I'm jest so thankful that she's all right that I ain't going to say nothing to him about it."

Mrs. Luce waited a few minutes longer to make sure that Daisyetta was beginning to regain consciousness and to tell the Sisters that she would send Daisyetta's father for her when the doctor considered it safe to dismiss her.

A heavy fog had settled over the tip of Texas, and the trip back to Harlingen was tedious. Mrs. Luce's assistant was delighted with the fragrance that permeated the fog laden air. "I never hoped to smell millions of orange blossoms at once. Let's stop a moment."

Mrs. Luce drew up beside an orchard. A coyote howled in the distance—that mournful call that is dear to the native Texan, because it is one of the few things that link the present to that past which is so rapidly being swallowed up by civilization. From a tree close at hand a cicada made his presence known by his prolonged shrill notes, and some little creature—perhaps a rabbit—rustled away into the weeds beside the road. Under the magic of the moment, Mrs. Luce relaxed against the cushions.

"It's gettin' late," reminded Mrs. McFlannel from the rear seat.

Thus recalled to duty, Mrs. Luce buzzed the starter. The assistant nurse was not so docile. "Why don't you ask her why we're out on the highway at midnight?"

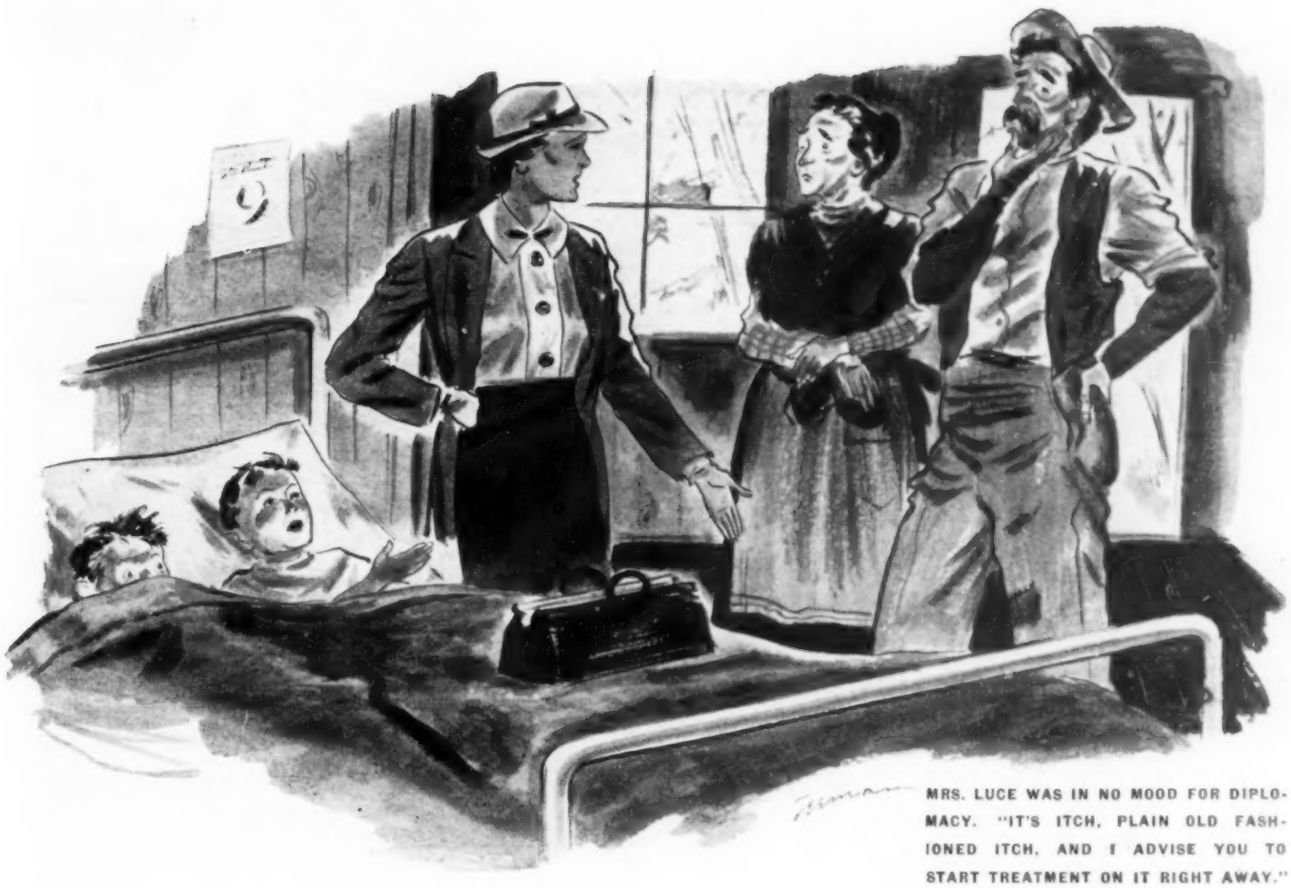
Mrs. Luce chuckled under her breath. "Anything over an eight-hour day is too much for the McFlannels; but we who get out their tacks for them must be of tougher stuff."

Perhaps the McFlannels sensed something of her feeling, for the silence was unbroken until the car had passed through San Benito, crossed the Arroyo Colorado and was entering Harlingen.

"It's a fine night, ain't it?" Mrs. McFlannel remarked sweetly as they crossed Jackson street.

Mrs. Luce, from long experience, knew that a request for aid was to follow. The young assistant turned halfway around in her seat, surprised that the nervous, querulous little woman could speak so pleasantly.

Five minutes later they reached the McFlannel home. Mrs. McFlannel was still pleasant. "Miz Luce, now you're here," she began brightly, "I wish you'd jest run in and look at the sores on Buddy's hands. He caught it in the relief



MRS. LUCE WAS IN NO MOOD FOR DIPLOMACY. "IT'S ITCH, PLAIN OLD FASHIONED ITCH, AND I ADVISE YOU TO START TREATMENT ON IT RIGHT AWAY."

office. I told him some of them kids wasn't nobody, but he musta played with 'em anyway."

Years of experience had taught Mrs. Luce that it would be an economy of time to look at Buddy's hands now—even at midnight. The itch is so easily stopped in its incipient stages.

The five remaining McFlannels had put themselves in one bed. Buddy's chubby hand lay conveniently on top of the ragged covers.

Mrs. Luce was in no mood for diplomacy. "It's itch, plain old-fashioned itch, and you know a mixture of sulfur and lard is the best thing to cure it. I advise you to start on it right away, for if all these children get it, you will have them out of school for the rest of the term." As she talked, she noticed the bare mattress and made a mental note to find out what became of the sheets which the Red Cross had given the McFlannels during the influenza epidemic the preceding winter.

Mrs. McFlannel cast resentful eyes toward both the nurses, but Mr. McFlannel was in a softer mood. "I tell you," he said to the younger nurse, "I was just a-thinkin' when the moon come up out of that fog so pretty a minute ago that we might a-been bringing Daisyetta back a corpse. We'd a-buried her right out there under that big ebony tree. I tell you I jest feel like shoutin'. If I had any likker in the house, this is one time I'd take a little dram. I feel so thankful I'm jest agoin' outside and sing a little."

Mrs. Luce was learning that Mrs. McFlannel had some sulfur left from the last McFlannel bout with the itch. Not being a woman to take chances, she was mixing some with lard and bandaging Buddy's hand with it. She was conscious of Mr. McFlannel's voice lifting in song just outside the open window. She wondered what Mr. McFlannel drank with his hamburger.

The young nurse leaned against the window frame. Mrs. Luce noticed that her shoulders were shaking. She put on the sulfur hastily. "Good night, Mrs. McFlannel."

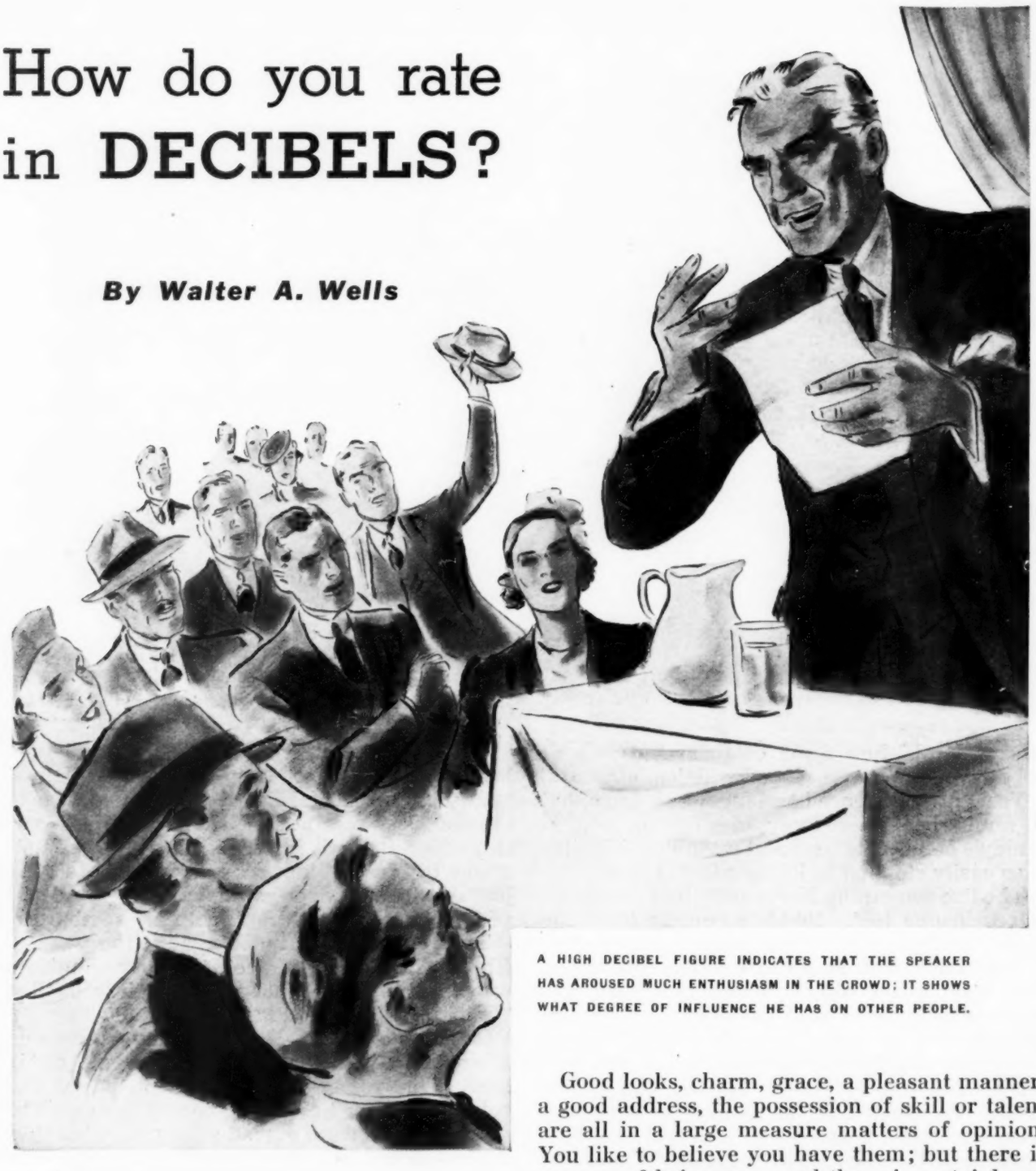
She fled to the car. Mrs. McFlannel advanced toward the window, "Mack, you come on in here. That young-un was a-laughin' at us. I'm going to report her to the county judge. The gov'mint pays them a good salary for what they do, and President Roosevelt wouldn't approve of no such goings-on. Thank goodness, he's for the pore people."

A half mile down the road the young nurse was still convulsed with laughter. "Did you hear what he was singing?" The music she produced could not compare with the McFlannel outburst, but her powers of imitation were not to be despised. She sang in as near a bass voice as she could command,

"God make my life a little light
within the world to glow,
A tiny flame that burneth bright
wherever I may go."

How do you rate in DECIBELS?

By Walter A. Wells



A HIGH DECIBEL FIGURE INDICATES THAT THE SPEAKER HAS AROUSED MUCH ENTHUSIASM IN THE CROWD; IT SHOWS WHAT DEGREE OF INFLUENCE HE HAS ON OTHER PEOPLE.

NO ONE should expect to have all of nature's bounties. Not every man can be an Adonis; not every woman a Venus. Nature has, however, compensatory gifts to bestow. She always has up her sleeve worthwhile consolation prizes. Without realizing it you may be the recipient of what is worth more than beauty, brains or a large share of the world's goods, commonly called riches. Perhaps you have a high rating in decibels. If so, then you are certainly destined to cut some figure in the world. It is within your power to find out whether you have this gift.

Good looks, charm, grace, a pleasant manner, a good address, the possession of skill or talent are all in a large measure matters of opinion. You like to believe you have them; but there is no way of being sure, and there is certainly no way of knowing how much. But a decibel record is not a matter of opinion, it is a matter of record, and you can, if you will take the trouble, find out exactly where you stand. You may get your rating in definite mathematical figures.

The decibel, internationally accepted unit for the measurement of sound, provides a new way of weighing a man's worth. It is named in honor of Alexander Graham Bell, the inventor of the telephone, because of his great contribution to the advancement of the science of acoustics. Speaking in a strictly scientific way, the decibel is a logarithmic number based on

the electrical energy necessary to produce sound vibrations of a given intensity.

The decibel must not be confused with that better known property of sound, its pitch.

Sound does not exist *per se,* but only in the ear of the listener. It cannot therefore be considered or even conceived apart from the sensation of hearing. Without hearing, what we call sound would be nothing more than a rhythmic series of vibrations of the air or other particles of matter.

Sound as heard by the ear has two properties; namely, pitch and intensity. Pitch depends on the rapidity of the vibrations. The human ear perceives vibrations ranging from as low as 20 a second to as high as 20,000. The cat is known to perceive vibrations to as high as 40,000 a second. It is thought there are other animals sensitive to an even higher frequency.

Intensity of sound, or its loudness, depends not on the frequency but on the amplitude of the vibrations. Hearing is limited with regard to the intensity of sound as well as pitch. The limits are set between a sound of such feeble proportion that it is rarely perceived and one of such great intensity that it produces a pain.

The range will differ with sounds of different pitch, being least at the two ends of the scale and greatest near the middle. This is as it should be, because it is this middle part of the scale that is most used for conversational purposes and is therefore the most useful part.

For the measurement of the intensity of sound the decibel is employed. At its best the human ear has a loudness capacity of 132 decibels. At a distance of 5 feet from the ear a quiet whisper will register about 10 decibels, ordinary conversation about 40, an automobile horn about 80 and an airplane from 100 to 120, this being close to the limit.

The decibel, though but little known in common parlance, has come of late to be a near household word for otologists, or at least for those who are interested in hearing tests. Such tests were formerly inexact and unscientific, but with the introduction of the decibel and the audiometer, hearing defects are now estimated with mathematical precision. Hearing is measured by determining the feeblest sound that can be heard. As the measure of sound intensity the decibel thereby becomes the measure of hearing sensitivity.

The decibel also lends itself to a different kind of measurement, a human measurement of a much more comprehensive nature, for it can be utilized to serve as a valuable general biometric test. It differs, however, from other tests of this class, as for instance Binet's intelligence test, in that instead of measuring the individual himself, it measures him in his relation to his fellow man.

In a way it measures a man's ability or talents; but especially it measures the influence they have on the people about him. It is more than anything else a measure of his personality. We have lately had evidence that millions in America are interested in the problem of "how to win friends and influence people." The decibel measure of sound will show truthfully and impartially to what extent you possess this precious gift.

Whenever a man stands before an audience it is generally with a purpose to amuse, to instruct or to persuade. If the audience approves, it will customarily respond by a reaction which we call applause. This reaction may be manifested by clapping the hands, stamping the feet, pounding canes or umbrellas, or it may be by whistles, yells or shouts. Since the reaction always takes the form of noise and since intensity of noise is measurable in decibels, the result may be taken as a decibel rating of the person responsible for it.

Although the decibel method evidently has infinite possibilities, little practical use has thus far been made of it.

Students in eugenics ought to be particularly interested in this way of rating man. This science advocates the weeding out of the unfit and confining race propagation to the highly qualified and meritorious.

This implies our possession of a standard measurement of qualifications. The decibel method is eminently sociologic: It measures a man according to his influence among his fellows. It is particularly well adapted to the eugenic idea.

Among the few practical applications that have been made of it in the sense here intended is its use for great conventions. An instrument appropriately placed for the purpose accurately registers in decibels the shouts and hullabaloo of the assemblage.

A high decibel figure is assumed to reflect a high degree of enthusiasm and constitute reliable evidence of popularity of the orator or of his sentiments.

The decibel has been similarly used to measure noisy street demonstrations. Employed in case of a celebration in honor of one of our national heroes it is regarded as a fair gage of his popularity. On the occasion of the celebration in New York of the homecoming of Lindbergh, the needle touched a new high, which has never since been reached.

I have never heard of the decibel meter being used as a guide for parliamentary proceedings, but I think it might well be so used. How much time is often needlessly lost in the tedious counting of votes. Some one offers a motion; it is seconded. The chairman calls for the ayes, then the noes. The ayes clearly have it; but there is no proof, and some petty obstructionist calls for division. There is a long and useless delay, which might have been promptly settled by the decibel. Or again *(Continued on page 66)*

By JAY N. FISHBEIN

Why Children Catch Colds

MANY MOTHERS, careless as they may be of their own health, are extremely careful of that of their children. They take what they consider all the precautions possible and so become highly exasperated when the child comes down with frequent colds. This is particularly true where there is only one child in the family. Invariably the mother will complain, "Doctor, I can't understand why Junior comes down with colds so often. I keep him away from the other children. He gets cod liver oil all winter long. He is always dressed warmly when he goes outside, and yet he has more colds than any other child on the street. Why?"

The explanation is by no means as difficult as it would appear. For example: Junior is being carefully dressed before going out. His snowsuit is put on, and he wears a sweater under his jacket for additional protection. Then his overcoat is put on. At this stage, Mother begins to look for his woolen cap and is unable to find it. Eventually the mystery of the missing cap is cleared up. It is found under a heap of odds and ends.

THIRTY MINUTES HAVE NOW ELAPSED SINCE THE ORDEAL BEGAN, AND JUNIOR IS ABOUT READY TO GO.

Meanwhile Junior becomes restless and frets and fumes and has to be forcibly restrained from leaving without his cap. Then his overshoes are missing. Finally one is located, and the search continues for the other one. Junior begins to whine, "None of the other kids wear overshoes." Mother explains to him why it is necessary to keep his feet warm and dry. Junior remains unimpressed and unconvinced. Meanwhile the minutes roll by, and the search goes on. Finally the missing overshoe is located; but the first one has disappeared. Eventually both are assembled, and with tears and complaints overcome they are forced on his reluctant feet.

By this time, Junior has already spent twenty minutes in an overheated house, wearing his snowsuit, his sweater, his overcoat and his cap. But the ordeal is not over. He has to pass final inspection. At last, Mother is satisfied; and with a sigh of relief, Junior is conducted to the door. But he is not yet permitted to make his departure. Grandmother calls out from the other room, "Is he wearing his muffler? It is very cold outside." The muffler is wrapped about his throat and pinned in place. Of course he must wear his mittens. But Junior complains he doesn't want his mittens. Why can't he just keep his hands in his pockets? But Grandmother says this won't do. All good boys wear mittens. So the mittens are pinned on his coat sleeves to make sure that he won't lose them or take them off when he gets outside. Now he must pass Grandmother's inspection. Finally everything meets with her approval, and permission to leave is granted.

Thirty minutes have now elapsed since the ordeal began, and Junior is ready to go. An accident happens. Junior trips over one of the long hanging ends of the muffler and bumps his nose. Junior cries. Mother is practically in tears, but she doesn't cry. She merely mumbles under her breath, "Why can't I be allowed to raise my own family without all this interference?"

The coat is removed, and the muffler is more carefully fastened. Junior, his eyes dried and his nose wiped, makes a final exit. Mother heaves a sigh of relief. Maybe she can get some work done now.

We meet Junior outside. According to all rules he should be prepared to resist even the

JUNIOR CAN'T PLAY ANYTHING NOW BECAUSE HE IS OVERDRESSED; SO HE JUST SITS DOWN ON THE COLD STEPS OUTSIDE.

most aggressive cold germ. Mother and Grandmother both feel that Junior is adequately dressed to withstand the rigors of winter. No self respecting germ would have anything to do with him. But the other children feel the same way. He is so overdressed he cannot play. Besides, Mother warned him not to play with other children and catch their colds. So Junior sits down on the cold steps instead of moving around. He is already perspiring because of the change in temperature after spending a half hour fussing indoors. Sitting down doesn't help his circulation any. His feet become cold, but his body feels very warm.

Soon he goes back indoors and asks mother whether he can take his coat off, as he wants to make a snow man. Mother is very angry. She hasn't begun to get the house in order, and it is almost time to prepare dinner. She is very abrupt with Junior and orders him out peremptorily with the repeated warning not to play in the snow. Junior goes out and sulks. Grown-ups are such queer people.

Soon he becomes intrigued by a wet spot in the snow. As the street is covered with snow, he is unable to tell that the wet spot is the melted snow in the gutter. He investigates. The hard crust at the top keeps him up for a while. Finally he sinks through the snow into the slush underneath, ankle deep. He is afraid to go back indoors. Mother scolded him before. Besides he might get more than a scolding this time. Anyway his feet are already wet, and a little more water won't make any difference. A little further down is another wet spot. Junior investigates this one also. The second one is even deeper. Junior scoops out a gutter between the two pools and watches the water run from one to the other. It is quite interesting, and he is so absorbed that he doesn't hear Mother calling him to come in for dinner an hour later. Finally he hears her and reluctantly leaves his marine engineering enterprise to go indoors.

Of course Mother scolds. How did he get his feet so soaking wet? It appears to be a profound mystery. Junior also appears mystified. Perhaps his overshoes leak. Examination fails to reveal any defect. Grandmother comes in to take her part in the investigation and discussion. The mystery is finally tabled until Father gets home. Father will punish him for being naughty, they say. Junior appears totally indifferent. Evening is still a long way off, and Junior knows that Father doesn't always lick him—at least not very hard. Night comes, and Junior begins to sniffle, with all the earmarks of a coming cold. How did he get it? Mother is so careful, but Junior always seems to pick up colds, and she just can't understand it.

One of the reasons the closely supervised youngster is so susceptible to colds is that he is not given the opportunity of developing any natural immunity. A little exposure does not harm a child. If Mother could only be made to realize that she can't keep Junior perpetually wrapped in cotton and protected from the rigors and harshness of the world! This does not mean that an attempt should be made to "harden" the child. This extreme is equally harmful. Some

SOON HE BECOMES INTRIGUED BY A WET SPOT IN THE SNOW. AS HE IS UNABLE TO TELL THAT THE WET SPOT IS THE MELTED SNOW IN THE GUTTER, HE INVESTIGATES.

mothers will send a child outdoors in freezing weather, in light clothing and with knees bare, with the idea of increasing his resistance.

A little common sense is a valuable thing and should be judiciously employed. Rational and intelligent as they may be in all other matters, in those pertaining to their offspring these young mothers often allow their so-called "maternal instinct" to overrule all reasoning, and the child suffers through their well meaning but foolish blundering. Junior is taken to school and usually called for at the close of the session. The slightest suggestion of inclement weather will have Mother fussing about like a bewildered hen. Father will go out of his way to see that Junior is safely deposited at the school door at the exact moment the doors open so that he will not be unduly exposed. If the weather is too threatening, Junior is kept home altogether. Between stormy weather and his recurrent colds, Junior misses quite a bit of school; but his health is more important, Mother says.

Junior's bath in cold weather may become a matter of gravest importance to his solicitous parents and may be indulged in only after careful deliberation. Even then Grandmother may veto it. Mother shudders in horror at the idea of Junior taking showers at the school with the other children. She simply knows he will catch his death of cold. The doctor is importuned until he consents to give Junior a note excusing him from showers.

All this fuss has a decidedly harmful effect on Junior, morally and physically. It creates in his mind the belief that he is not like other children. This feeling of inferiority instilled at the impressionable age has a much greater demoralizing effect than any number of colds.

The first thing to do in the presence of frequent colds is to determine whether there is any physical cause for their occurrence. Does Junior have diseased tonsils or adenoids that might render him more susceptible to infection? If so, these should be removed. Does Junior have any sinus infection? If so, this should be treated. Infection of the ethmoid sinuses is frequent in children subject to recurrent colds.

Is Junior undernourished? Mother would be highly insulted if this question were put to her. Nevertheless there are probably as many undernourished children among these well cared for youngsters as there are among the underprivileged. Why? Because Junior has been pampered. Mother says, "He simply won't eat!" She has to coax and bribe him. Junior knows by previous experience that at the dinner table he is master. Every meal becomes a battle. He knows he can have his own way if he holds out. He becomes a young tyrant. Will Mother promise to get him a drum if he eats his cereal? Mother reasons with him. She pleads. Eventually she gives in as Junior knew she would. Even when he has no ulterior motive, Junior will "pick" at his food. He will be subject to "whims." He will pass up a hot, well prepared and nourishing meal and demand a can of sardines. It is impossible to get Mother to set the food before Junior and then ignore him. Let him eat if he chooses. Let him sulk. When he realizes that it does him no good and that no attention is being paid him, he will eat his meal quietly and be less of a problem with the following meals.

Another bone of contention is rest. Does Junior get enough sleep? Does he retire at a regular hour? Or is he allowed to stay up as long as he chooses and retire when he pleases? Does he appeal to Daddy or to Grandmother to stay up "just a little while longer?" Does the question of retiring resolve itself into a daily battle? Sufficient rest is an important factor in maintaining Junior's resistance, and this is well to bear in mind. Junior should also be taught to wash his hands carefully before each meal, as it is important in the prevention of colds. The establishment of a daily routine is of vital importance; and the earlier these habits are established, the better for the child.

"Only a cold!" Three words which, carelessly spoken, have caused needless distress, disease and even death. There is no such thing as "only a cold!" A cold is always something more—it is contagious and costly; it may lead to chronic infections, loss of hearing and even to pneumonia and influenza. To learn more of its importance, tune in on Wednesday, January 11, to the program "Your Health," and hear what the American Medical Association and the National Broadcasting Company have to say on the cause, spread and prevention of colds, pneumonia and influenza. *(For further details, see page 74.)*

Relative Importance

"Little love, I am here!
Did you miss Mother, dear?"
"Little Love" glances up from his coloring book
As he gives his Mama a vague, color-filled look.
"Nope," he smiles. "Do you think that this camel would do
With his blanket all green and the bells on him blue?"

By VIRGINIA BRASIER

LUM and ABNER

Radio Pair, to Talk of Doctors' Problems

LUM AND ABNER, radio rural philosophers from Pine Ridge, Ark., have allied themselves with the medical profession to consider relationships between patient and doctor.

During the week of December 26 the Ozark pair will devote a portion of their broadcasts to serious discussion of this topic, in which laymen as well as physicians have a very real interest.

It is suggested to HYGEIA readers that they tune in the program for Lum and Abner's comment on the subject. Quaintly humorous with their down-to-earth Ozarkian dialects, the old couple nevertheless get over their ideas in direct fashion.

"A feller who won't tell his doctor ever'thing that ails him ain't got much right askin' fer help," says Lum. "Ther's too much complainin' an' not enough thinkin' goin' on. Grannies, some folks 'pear to think a doctor ought to read their minds—an' then they get mad iffen he does."

They are heard over the stations of the Columbia Broadcasting System each Monday, Wednesday and Friday night at 7:15, eastern standard time, 6:15 central time, and through rebroadcasts at 9:15 mountain time and 8:15 Pacific coast time.

Lum and Abner in real life are Chester Lauck and Norris Goff, two good looking young fellows the exact opposites of the old chaps they portray on the air.

Lauck, at 36, is a slender 6 footer with blue eyes and black wavy hair. Goff, four years younger, is 5 inches shorter, a bit more stocky, with straight brown hair and blue eyes.

Both boys are natives of the mountain country they describe so well and have been inseparable companions from early boyhood. While their series is wholly fictional, its setting is very real. Dick Huddleston, one of the radio characters, actually lives and runs a general store in Pine Ridge and counts himself the closest friend of Lum and Abner.

Two hundred persons live in Pine Ridge, located 16 miles from the county seat of Mena, which is mentioned often in the scripts. At the time the broadcast was started in 1931, there was no Pine Ridge in existence. The boys hit on the tiny village of Waters, Ark., for their setting. But when their broadcasts carried them to fame, the Waters townspeople got together and put through a petition to the U. S. Post Office to change the name officially to Pine Ridge. This was done in April 1936, on the fifth anniversary of Lum and Abner's advent on the air.

That advent, by the way, was quite by accident. For some time they had been entertaining in Mena with a blackface act. A radio station in Hot Springs heard of them and asked that they make an appearance at a charity show. At the last moment they discovered that there were four other blackface acts on the program. Going into a huddle, they decided to imitate characters around their home town and without giving the matter much thought chose the names of Lum and Abner. They have never been off the air since, except for short vacations.

All the characters on their show are portrayed by Lauck and Goff. Lum is also Grandpappy Spears and Cedric Weehunt. Abner becomes Dick Huddleston and Squire Skimp when occasion demands.

In addition to acting the parts, Lum and Abner write all their scripts themselves on the day of the broadcasts. They seldom finish more than fifteen minutes before the first broadcast, and not even officials of CBS see a copy of the script before the show.

Both are married, and each has two children. Both live in San Fernando Valley adjacent to Hollywood, and both raise fine blooded horses as a sideline. Off the air, as well as on, Lum and Abner are cronies.

Perfect Understanding

I once was fearfully annoyed
By all your ways, till Jung and Freud

Furnished the proper explanation
Which clarifies your motivation

(Or, as the uninstructed say,
Discloses "How You Got That Way.")

So now I know your faults and errors
Are wholly due to childhood terrors

And that your nasty disposition
Is nothing but an inhibition

Caused by a dream that came to you
When you were three years old—or two;

I realize your selfish greed
Is not your fault but due, indeed,

To having met, in infant battle,
Some tougher tot who swiped your rattle.

So, like a true psychiatrist
I try to look upon your list

Of faults, without asperity
And in this mood of charity

Regard your crotchets, which, of yore,
Would irritate and make me sore,

As just neuroses and obsessions
Which, obviously, you cannot help,

Since they resulted from repressions
When you were just a *little* whelp.

Using this psychiatric slant
I try to like you, but I can't;

Despite compassionate endeavor
You're just as hard to take as ever!

By BERTON BRALEY

Old Sock Confronts Superstitions

By PHILIP JARED

I SUPPOSE few people, indeed, do not carry superstitions tucked away somewhere in their minds. Why black cats which cross one's path may control one's destiny, I could never understand. After all, the black cats are just prowling around being cats. Then, too, this business of walking under ladders can be bad luck if there is a malicious or careless painter above—and the bad luck is immediate if there is any. Usually it is deserved because the walker has not used reasonable discretion.

The Answith incident which ignited Old Sock's family clean-up was caused by Judith. She came home one evening from a wedding party with a piece of cake wrapped in a paper napkin. As she excitedly showed it to her mother, who was the only one she felt would really appreciate the merits of her plunder, Old Teaser made a grab for it. He missed and then dodged as if he expected the slap he deserved.

"'S no good anyway!" he grumbled, his mouth watering like sour grapes.

"'Tis too!" objected Little Claribelle indignantly. "Marylyn Hosto's big sister slept with a piece of wedding cake under her pillow, and she got married pretty soon."

"Aw, I don't believe it!" grumbled Old Teaser, but he knew it was a fact. "That dumb ol' Cluck," he indicated Judith with a thumb thrust, "she needs a whole cake for a pillow."

"Quiller," said Mrs. Answith reprovingly, "Judith can bake delicious cake. Maybe that may work even better than sleeping with a piece under her pillow."

"Superstitions!" snorted Old Sock, uncoiling from beneath a book.

"Who said I was going to put this cake under my pillow, anyway?" asked Judith rhetorically.

"I wonder?" remarked Old Sock suspiciously. "I really wonder what such a superstitious per-

son would do with a little old dried up piece of pedigreed cake?"

And I, too, wondered what Judith would have done with that morsel of cake but for Old Sock's sarcasm. I knew Judith had rather less of superstitions than most girls of 16 because the Answith family ran to science rather than mysticism. I watched and waited. The cake fell to crumbs on her chiffonier and found its way into her waste basket, unflattened by the weight of her night-coiffed head.

Old Sock was by temperament something akin to a reformer. Furthermore he was taking a college course in elementary psychology. His appetite for details of the mind's working led him occasionally from the sublime to the ridiculous because he was not sufficiently steeped in brew of mind science to discern the trivial from the important. Besides he was trying unconsciously to attain a feeling of importance which more advanced psychologists say is one of the mind's strongest reasons for being. He did not care, in his haste to feel important, whether he trampled over the sensibilities of the remainder of the household. Sock had to eradicate superstitions from all errant members of the race thereof. Aye, how could he feel unadulterated importance while his own flesh and blood remained in benighted ignorance? Superstition!

One evening he was deriding the fun Little Claribelle and Judith were having while pulling a wishbone. Judith, he ranted, should not be guilty of teaching her little sister that the mere possession of the larger piece of the bone would make her wishful thinking come true. This was so especially illogical that even little Claribelle knew that it was the hold and the technic of pulling which were the most important parts of getting the so-called lucky piece.

Dr. Answith must have been annoyed. Anyway, he folded his napkin and took his glasses off to polish them while he turned his eyes toward the ceiling.

"Er—Junior," he interrupted, "just what are superstitions—a superstition? Perhaps you're superstitious about superstitions?"

That stopped Old Sock for a while. He could not define his psychologic bugbear of the moment, not even to his own satisfaction. Superstitions were a lot of bunk and hooey, he insisted, and they did not add up to make sense for scientific and informed minds. Dr. Answith was willing to agree but insisted that Sock's own notions about superstitions were closely akin to the superstitions.

"If I don't believe in them, how can I be superstitious?" Old Sock sensed he was in for a job of face-saving. He wondered how to make it as easy as possible.

"My grandmother insisted, when I was a child, that I wear a little chamois bag with a lump of foul smelling asafetida in it. It was hung on a string around my neck, and the aromatic little bag was practically under my nose all the time. It was supposed to protect me from certain childhood diseases. My nose became accustomed to the odor, and Grandmother felt happier. Was that a superstition?"

"One of the first water, I'd say," agreed Old Sock almost enthusiastically.

"But I had measles, mumps and sore throats just the same. What about that?"

"Nothing, except the charm didn't work."

"Oh, yes," insisted Dr. Answith, "there's more than that. My grandmother felt easier in her mind while I was wearing it even if it didn't protect me."

"That was a funny attitude on her part, wasn't it?"

"She didn't think so; at least, she resented having that explained to her. The point I wish to make is that there must be a certain attitude along with the belief to make it a superstition. If you are expecting to become a practical psychologist you must analyze just as a chemist does," hinted Dr. Answith.

"Yes, but she believed in something that didn't work," sputtered Old Sock.

"Humph, I believe in my car, but it doesn't work sometimes."

"There's some reason for believing in the car. It can be fixed so it will run. The best part of asafetida is its bad smell, isn't it?"

"Well, I suppose so. Grandmother had an *abiding faith in an unfounded belief.* She had heard a little about microbes being the cause for some diseases. In fact, she was afraid of germs. She was also afraid of the few vaccines and serums we had then, except smallpox vaccination. She said she couldn't seem to believe in them. I realize now that she was afraid, peace be to her bones. Don't you see, she had a faith in a nauseous charm and an unreasoning fear of the real protecting agency? She was a fine old lady, but her unscientific mind wouldn't believe what it did not want to believe. There was a bit of the mystic in her. She lived by her likes and dislikes, her faiths and fears, and got along pretty well too. She always had plenty of company in her generation. One generation laughs at another's superstitions—sometimes," he added laconically.

"It's rather like the situation when a truth is not the truth, isn't it?" remarked Old Sock philosophically.

"Certainly," half mused his father. "You rarely hear of 'mad stones' these days. Pasteur's work stopped that superstition. As a boy the age of Quiller I knew about them. At least I was shown one by an old doctor who was too set in his ways to believe the truth about Pasteur's rabies vaccine."

"What I've read about rabies didn't mention any mad stones," said Old Sock surprised.

"Why waste paper and ink in a scientific textbook these days on a superstition? Mad stones are light stony concretions found occasionally in the stomach of a deer. They have a porous spongelike appearance. When cleaned and dried they absorb water or serum by capillary attraction. Sometimes they would actually stick to a wound until they became heavy enough to drop off. The superstition had it that if the stone stuck to the wound the animal bite had been made by a rabid animal. If the person bitten lived without having rabies, the stone had sucked the virus out of the wound. People sometimes traveled miles and miles in the old days of hard travel to get to one of those mad

stones. If it did not stick, or if it stuck and rabies developed anyway, they felt assured that the patient had not been treated soon enough. Only those who were scientifically and statistically inclined could see where the fallacy was. But before the scientific discovery of Pasteur they had nothing better to offer. Anything they said or wrote about superstition had little effect on the mad stone superstition.

"Br-r-r!" shuddered Old Sock. "What a situation for people bitten by rabid animals. They had no real help medically, and the help they did have seems only a silly idea to us now. I wonder whether there are other superstitions and we don't know it?"

"Well," smiled Dr. Answith covertly. "I know a young fellow who got a bit sick after eating a 'combination' of protein and carbohydrates." Dr. Answith thus made another dig at Old Sock because he had once read too well the exhortations of a diet faddist.

"Aw, lay off, Dad! How was I to know that fellow didn't know his physiology?"

"You had a fear engendered by an unfounded idea, didn't you? I'm just trying to show you how a fear or a faith or something mystical must be associated with superstitions. The superstitious person isn't to be blamed and criticized unless he is aggressive enough to insist that others believe in his superstitions or unless the effects of his superstitions are actually harmful to others. Instead, education is a better remedy for superstitions, even if the person who is the pioneer in the educational work usually has a hard time of it."

"What do you mean by that?" Old Sock asked rather incredulously.

"Although it made Lister famous, it did not make his life any easier when he came out with the idea that no pus is 'laudable' and that any kind of pus means undesirable infection. He got a lot of criticism and ridicule. So did Semmelweis when he showed what relation there was between childbed fever and dirty hands. He was persecuted for being right at a time when everybody else was wrong. It's hard to go against superstitious currents of thought. That milk ordinance fight you got yourself involved in was mere child's play compared to breaking down a superstition inimical to public health. It was only a lark for you, but suppose you were accidentally entrusted with something of the serious magnitude of Jenner's discovery of smallpox vaccination or Von Behring's discovery of diphtheria antitoxin, and superstitious people were against your doing things for their own benefit? What then? Remember, every epoch-making discovery is ahead of the times. Just how would you propose to conduct yourself?"

"But-but," stammered Old Sock, "I don't think that will ever happen to me. Besides, what has such an imaginary situation to do with my having a superstitious attitude about superstitions which you intimated I had?"

"Because you seem to have an unfounded faith in the efficacy of ridicule! Because every new fact must combat the untruth that it displaces. People resent being proved wrong even if they are better off after being put right. It's a curious quirk of the unscientific human mind. Even the scientifically trained minds have vanity troubles.

"The scientific mind must always fight against the tendency to jump to conclusions. It must prove facts and accept them despite a wish, desire, fear or hope for the facts to be otherwise. Just as there is the attitude to believe implicitly in superstitions, the scientist has an attitude of skepticism and analysis."

"Then," said Old Sock, "being critical and suspicious is the right attitude.

"Since those words have a destructive or malicious flavor, wouldn't it be better to say, curious and analytic? The scientific mind should have no place for malice about truth and facts. The scientist works toward his conclusions, doesn't jump at them with his proof."

"I don't understand."

"Well, an antivaccinationist may dislike vaccines, either from fear or ignorance or even because he dosen't want to be hurt a little. Since vaccines or serums are usually developed by animal experimentation, he may reason, animal experimentation should be abolished because, so he says, it does not lead to anything worth while. Naturally, if he were right in the beginning, he would be right in his conclusion. If he had curiosity instead of suspicions or a philosophic skepticism instead of unfounded conclusions and beliefs, he would not be a potential source of danger to other people."

"I don't understand that either."

"Because people with the characteristics I just named are superstitiously inclined. Sometimes they are aggressive. They might and occasionally do prevent others from having the protection afforded by vaccines. Suppose they could stop smallpox vaccination and diphtheria immunization? Both smallpox and diphtheria are killers, and both can be prevented. But would the consciences of such minds hurt? I don't think so because superstitious minds always have an answer: God, Fate, the Stars. I'm not irreligious when I say, 'God helps those who help themselves.' Nor have I ever heard of a better reason for being religious."

"I guess I was a little 'superstitious about superstitions,'" admitted Old Sock. "I didn't take the trouble to find out why people are that way."

"They aren't all bad—wedding cakes, Hallowe'en and Santa Claus," smiled Dr. Answith, which was a pretty nice let-down for a know-it-all college sophomore. "People have a lot of fun with that kind of superstition."

ENZYMES

Dictators of the Digestive System

By HYMAN GOLDSTEIN

IT HAS BEEN SAID that man is what he eats. Man, however, appears to bear no resemblance to a slice of bacon or a cup of coffee or a tomato juice cocktail. Apparently, the body does something to the food one eats that puts it into a form that the body can use to build up bones and muscles and glands.

Cane sugar is a valuable and nutritious food. However, an injection of cane sugar into the blood circulating throughout the body would be about as worthless to the body as a meal of parboiled wooden splinters. Undigested proteins circulating in the blood would be as useless to the body as a well inhaled whiff of carbon monoxide gas and would be almost as harmful.

In order to change the food we eat into something more valuable to our tissues the body has a complete assortment of food wreckers. From the moment you put your food into your mouth until its broken-down products find a home somewhere in a nerve cell or any of the variety of cells that constitute the different tissues, these wreckers, called enzymes, are continually at work. Even in the tissue cell other enzymes continue the work.

The enzymes poured into the mouth, stomach and small intestine are engaged in the processes of digestion, which is nothing more than putting the food into a state that can be used by the body. This means that the food must be chemically transformed into small particles that can be absorbed by the body and incorporated into its tissues. It means that the insoluble dietary compounds we eat are converted into soluble ones. In this sense, as you are cooking your potatoes or your carrots or beef stew you are beginning the process of digestion. The high temperature of the flame under your pot and the water, which is also present in the uncooked food, act to start breaking down the complex protein, carbohydrate and fat molecules. This process is continued in the body after the food is eaten. The temperature of the body and the ever-present water in the juices of the digestive tract help to complete the breakdown. The enzymes in the digestive juices speed up this breakdown process and make it possible for the gentle warmth of the body to replace the hot flame of the gas range and for mild chemical reactions to replace the more drastic ones of the kitchen and the laboratory.

Enzymes are always present. While their presence helps the digestive processes along, they themselves do not enter into the reaction and are not used up. The enzyme may be likened to a spark that sets an explosion off, but unlike the spark it does not vanish when the reaction or explosion is over.

The nature of enzymes and the phenomenon of enzyme action is still chemically inexplicable. All that is known is that certain glands secrete juices containing these different enzymes. Each juice may contain one or more enzymes. The juices are poured through tubes into the digestive tract, of which the mouth is a part, and mixed with the food by the activity of the teeth and of the muscles of the walls of the stomach and small intestine. After the food is digested, it is probable that the enzyme, which is unchanged, is absorbed with the digested food by the body. It is also probable that the enzyme can be used over and over again. A minute quantity of enzyme can bring about chemical changes in large quantities of food. It must be made clear that enzymes merely accelerate the whole process of breaking down the food particles.

Each enzyme will speed up only the reaction that any one particular substance or group of similar substances is undergoing. Thus, in the alimentary canal there are enzymes that act on proteins, those that act on starches, those that act on sugars and those that act on fats. Furthermore, not all the enzymes act to carry a breakdown process to completion; that is, to a state where the products are small particles that can be absorbed by the cells lining the digestive tract. Some of the enzymes go only part of the way in breaking down the food particles; other enzymes pick up the burden

IN ORDER TO CHANGE THE FOOD WE EAT INTO SOMETHING MORE VALUABLE TO OUR TISSUES THE BODY HAS A COMPLETE ASSORTMENT OF FOOD WRECKERS.

Ewing Galloway

at this point and carry on to completion. These various types of enzymes are represented in the saliva and in the gastric, pancreatic and intestinal juices.

As it passes through the alimentary canal the food is treated with remarkable efficiency, almost every drop of food value being squeezed out of the ingested diet. Its journey through the canal may be likened to that taken by a chassis on an assembly conveyor in an automobile factory. As the chassis passes the various machinists, different things are done to it, the result being the finished automobile. As the food passes through the different parts of the tract, the various enzymes are poured on it. They too do something to the food. However, instead of building up the product, as in the factory, they break it down until the final result is a mixture of simple molecules.

Food is taken into the mouth, and immediately an enzyme in the saliva gets to work on the large molecules of starch in the food. The starch molecule is cleft into simpler molecules of a sugar. This product, however, is not quite as simple as dextrose, the sugar that the body can absorb and use. It passes through the stomach, unchanged by the gastric juice, and reaches the small intestine, where the wrecking process is completed. Here the intestinal juice and the pancreatic juice carry on where the saliva left off. An enzyme in these juices brings about the final conversion to dextrose. It also acts on any starch that may have eluded the chemical clutches of the salivary enzyme.

In addition to the enzyme in the intestinal juice that follows up the work on the sugar produced by the salivary enzyme acting on the starches, there are two other sugar-splitting enzymes in the intestinal juice. These act on the milk sugar, that is, the sugar normally present in milk, and on the cane sugar that we may put into milk to sweeten it to our taste. Splitting either of these sugars results in dextrose and

another sugar, the latter being different in the case of the milk sugar from that of the cane sugar. The final results of these enzymatic splittings are all simple sugars that can be absorbed by the walls of the small intestine and used by the body.

Proteins have a relatively uneventful journey down the canal until they reach the stomach. That is where they first begin to feel the heavy ax of the enzyme. The gastric juice of the stomach contains a couple of enzymes that attack the complicated protein molecules and split them into simpler proteins. These products are more complex than the simple amino acids that the body must have in order to build up its own particular proteins for the different tissues. The intermediate products don't travel far before the pancreatic and intestinal juices of the small intestine bring into play several more enzymes to complete the job. One of these enzymes acts to carry on the work started by the gastric juice; the other seeks out the particular protein molecules that slipped by the gastric enzyme in the stomach without being split. When the last protein molecule has been split and resplit until the desired size of the molecule has been reached, we have an assortment of many different, separate amino acids in the small intestine. They are suitable for presentation to the body and are ready to start their second great adventure in the tissues of the body.

It is interesting to point out, in this connection, that the walls lining the stomach and small intestine are composed largely of protein materials. They are almost continually in contact with enzymes that split proteins. Are our stomachs and intestines the prey of our own enzymes? Nothing of the kind! If this were so, man would be digested and destroyed by his own digestive juices! It is probable that the reason for this apparent immunity to self digestion lies in the presence of certain substances in the walls of the stomach and intestine that inhibit the effect of the enzymes.

The effect of enzymes is inhibited in other ways also. Enzymes, like so many other features of the body, can do their best work only under certain optimum conditions. The enzymes in the gastric and intestinal juices are activated only by an acid medium. This acid medium is fairly constant and is not markedly disturbed by the ordinary changes in the acid-base equilibrium of the body.

Fats must travel even a little further than the proteins before they run into any trouble from enzymes. It is not until they reach the small intestine that they meet their "Waterloo." In children there is an enzyme in the stomach that attacks fats. This enzyme, however, is quite ineffective in the adult. An enzyme in the pancreatic juice completely splits the fats into glycerin and the different fatty acids. There is no further work to be done on them by other enzymes. These products are now in a form in which they can be absorbed by the body.

While one enzyme usually restricts its activity to a single substance or similar substances, it is evident that any glandular secretion, such as the gastric or pancreatic juice, may contain several different enzymes, each of which may act on different kinds of foods.

Not all the substances that we eat must first be acted on by the enzymes before they can pass through the lining of the intestine into the blood stream. Some of these, such as grape sugar, water and salt, are already in a simple form, and enzymes need not act on them.

It becomes clear that enzymes act for us as restrictive barriers to protect our lives. They are selective agents that restrict entrance into the blood to only those materials that should be allowed to enter it. They break down materials that would be positively harmful if allowed to get into the blood unchanged, although they are perfectly good foods if properly digested. Perhaps the specialization that follows as a result of each kind of food having a specific enzyme to act on it makes for greater care and vigilance in this matter.

Besides keeping out harmful substances, enzymes may, if they are defective in their action, keep out useful substances too. Proteins, carbohydrates and fats must be transformed into simpler forms by the enzymes before the body can use them. In the case of poor digestion—or poor enzyme action—this transformation does not occur, the food is not absorbed, and the body thus remains undernourished despite the consumption of adequate food. If our meals are not prepared to our taste, we may order others. On the other hand, if the food in the digestive tract is not prepared to the body's taste, the body starves. In these instances, man frequently resorts to eating predigested foods. These foods have been completely broken down by artificial methods, and hence the use of man's enzymes is not necessary. In the laboratory these artificial methods used in the digestion of foods employ boiling heat and strong reagents. The digestive enzymes of the body make unnecessary such violent measures.

Enzymes are involved not only in digestion but also in a great many chemical processes that make up life. In every cell they play a part in building up as well as breaking down the materials that go to form protoplasm. It has been said that life is just one enzyme reaction after another.

FALSE PRIDE and FALSE TEETH

Dentistry today can match your original teeth by perfect reproductions. No need now for delay, doubt or differences, says

B. BUNNELL

THE AVERAGE WOMAN makes a great mistake when she prefers to sacrifice her health for her beauty. She doesn't realize that no woman can be beautiful if she is not healthy. She carries about a strained worried look. Her smile is peaked; her thoughts are dull and slightly stupid; she has lost her glamour, all for the sake of appearance.

Frequently this pride in appearance has hindered a woman from having necessary dental work done. Such neglect may have far-reaching and unsuspected results; for "bad teeth" are often the cause of aches and pains throughout the body. Their poison may affect the nervous system and the blood and lead to serious disease conditions.

Naturally, it comes as a shock to any woman to hear the dentist say, "Those two front teeth will have to come out!" Her first reaction is one of indignant protest and flat refusal: Go around without front teeth? Of course not! How utterly absurd!

But let her investigate a replacement for these teeth, before she dismisses the thought of extraction. If only one or two teeth need to come out these may be replaced as soon as the extraction is made, so that no one can tell the difference. At 2 o'clock Mrs. Brown may have her two front teeth replaced, while at 3 she may be playing bridge with her most caustic opponent, who would be entirely ignorant of the change.

Modern "miracle men" are products of a scientific age. Dentists never finish learning about their profession because improvements in the arts of dentistry are being made every day. Replacements can be made as soon as extractions have been completed if the patient is willing. The dentist will take an impression of that part of the mouth where the replacements are to be made. The exact color of the teeth is matched with that of the patient's; wax models of the teeth to be replaced are made and sent to a denture laboratory where these porcelain false teeth are manufactured. These will be returned to the dentist, who will attach them to a removable bridge which he has made to fit the patient's mouth. After extraction, the false teeth are replaced in the socket of the natural ones in the patient's gum. The bridge is fastened to teeth in the rear of the mouth so that nothing will show when the patient smiles.

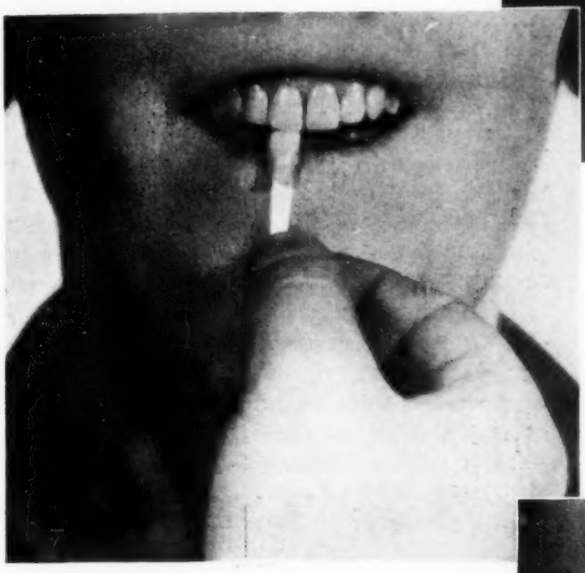
But the making of whole sets of false teeth presents an entirely different proposition.

In making the teeth the dentist first considers the shape of the patient's head. Each patient presents an individual case, and separate problems arise with every person. But there are fundamental factors which enter into all denture making. Teeth are selected according to the principles of facial harmony; Dr. J. Leon Williams, who found that the teeth of man are square, tapering or ovoid, or some modification of these typal forms, related this to the fact that all faces are of these three shapes. Since that correlation was made, the selection of teeth has not been haphazard but has been scientifically accomplished. The square faced person uses square teeth, lending a harmonious effect that is pleasing.

In planning the kind of forms on which these teeth are designed, much information has been gathered through the years. First it was necessary to study faces. Thousands of photographs were taken; outline forms and proportions were noted; sizes were studied; different groups were classified, and their number was noted to determine the prevalence of certain characteristics. The demand for certain tooth forms and the need for others was considered. Natural teeth were studied, not so much to copy them as to determine nature's intentions in making them as they were and to avoid the discrepancies.

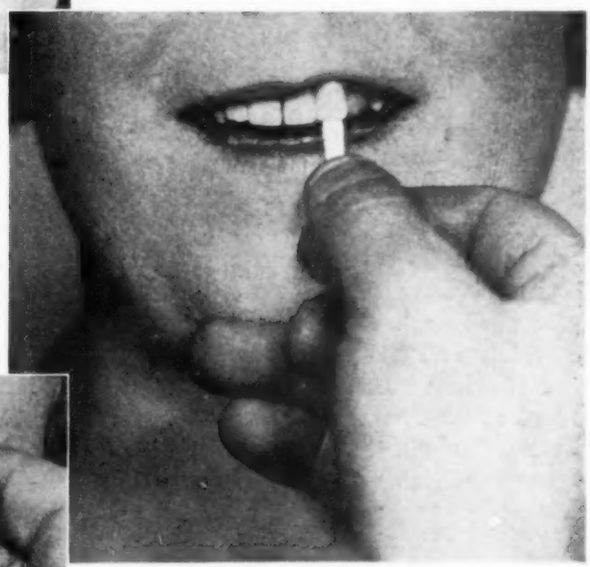
Because of a complete change in the method of carving the teeth, as a result of this study, each central, lateral and cuspid tooth in the anterior part of the mouth is an exact duplicate in outline and contour of its mate on the opposite side, and each mold in a given form is exactly like every other mold in that form except in size. The plan of gradation of sizes is based on a difference in the central incisors. The sizes differ according to the factory making the teeth, as does the method of designating the class, form and size. Some factories use all numbers, such as 113, 212, 509, while others use letters and numbers, as P-2, M-1, L-5, W-3.

IN MATCHING NATURAL TEETH WHERE ONE OR MORE ARE TO BE REPLACED BY ARTIFICIAL TEETH ADJACENT TO THEM, IT IS IMPORTANT FIRST TO DETERMINE WHAT IS THE MODIFYING TINT IN THE ENAMEL.



THE GUIDE WHEEL FOR SELECTING THE MATCHING COLOR IS HELD NEXT TO THE PATIENT'S OWN TEETH; IN THIS WAY THE DENTIST MAY CLOSELY APPROXIMATE THE NATURAL SHADE.

ALTHOUGH THERE IS A WIDE DIVERSITY IN THE COLOR OF TEETH, THE BASIC SHADE IN THE ENAMEL IS GRAY. IT MAY BE MODIFIED BY TINTS OF BLUE, YELLOW, RED OR BROWN.



IN MATCHING TEETH EXACTLY, SEVERAL OTHER FACTORS ENTER INTO THE PROCEDURE. FOR INSTANCE THE LIGHT CONDITIONS AND THE PATIENT'S IMMEDIATE ENVIRONMENT MUST BE CLOSELY WATCHED FOR REFLECTION OF COLOR.

From this point on, two great factors determine the outcome of the individual's teeth: the skill of the dentist and the ability of the patient to pay. If the patient wishes to secure a perfect reproduction, an exact duplicate of his natural teeth, he must be willing and able to pay for the dentist's time. The dentist must notice not only the peculiar twists and turns of the patient's teeth in his mouth but the individual stains or markings. He will take an impression of the patient's mouth with the natural teeth in. Exact duplicates of the teeth will be made as far as possible, but this involves breaking up sets—taking a P-1 from one set, a W-2 from another, a 113 from another. This involves a knowledge of the companies which make teeth and of the exact number of a tooth made which conforms as nearly as possible to the natural size, form, class and color. If that tooth cannot be had, it can be made by hand but will of course be more expensive. After the dentist has patiently worked for hours matching and selecting these teeth, he has just begun. Then he will note the stains on the patient's teeth and mark them carefully on the order for each tooth. When the teeth are sent to him from the laboratories he must spend hours in his small laboratory placing them in the gums in the exact positions of the natural teeth.

The patient who is not so particular does not demand the great amount of time which the former case exacted. That is, the patient who is willing to have his teeth matched in color and to accept a standard form of tooth—square, tapering or ovoid—according to the shape of his face and also a standard size, estimated according to the size of his central incisors, will not need to have sets of false teeth broken up but will take the graded sizes of one mold. In other words he will not fill his mouth with W-1, P-2, Y-3, 213 or 114 but will have all W's or all P's or the like.

Such sets are much less expensive and often more beautiful than the patient's original teeth. More often the patient will want this kind, for he has never admired certain features of his own teeth and hence would like to redeem these features while he can. Perhaps through the years, extractions have been made; and since the dentist may have no means for duplicating the missing teeth, others must be supplied.

Aside from these considerations, the dentist faces a different problem with each of his patients.

Although every one conforms to modifications of the three types of faces, there are added features which enhance the difficulties, such as receding chins, protruding upper gums and chins that are too short or too long. In addition, there are those persons who have had previous extractions. Absence of teeth changes the bite, for the two jaws then naturally come closer together. This does not allow enough space to put plates of false teeth in between. To accomplish the task, the dentist must open the bite for space, gradually. This may involve the making of several sets of teeth before the patient is in complete comfort, for the tissue is put back into shape gradually, and the gums recede only after extractions have been made. Not until the gums assume the form that they will have the remainder of the patient's life can he be sure that his teeth will be entirely satisfactory to him. That is why dentists like to allow time between the extraction and the replacement, although it can all be accomplished within twenty-four hours. If the patient requires such a hasty job he must bear with the dentist in the outcome, because no dentist can account for the works of nature. He cannot determine what will happen to the gums after the teeth have been extracted, any more than citizens in volcanic areas can know exactly what the land will be like after the volcano has erupted. The topography changes.

But other problems must be met. Some persons have been in accidents and have had their jaws thrown out of alinement. In these cases it may be necessary to put the lower teeth a fraction of an inch outside of the upper teeth on one side and inside the upper teeth on the other side to correct the defect. In case of protruding gums, dental surgery shows triumphant results. Those dentists who are accomplished in the art may remove enough bone from the gums to allow room for the false teeth to fit in, correcting the defect in the profile. But the patient should be sure of the ability of the dentist whom he chooses for this type of work, because many difficulties may come up. If too much bone is removed, there will not be enough gum left to sustain a pair of dentures. Never would the patient be able to have false teeth. The anatomic features must be sufficient to retain the dentures, or the patient simply may not have replacements.

If the patient has a receding chin, that profile line may be corrected by building out the gums of the teeth. But if he has already had extractions, his case may vary. For example, some one may have had teeth out on just one side, permitting the jaw to close on one side and remain open on the other, while another may have had all back teeth out, and may have been chewing for years on the front teeth. This causes the front teeth to protrude when the jaws close in the rear areas. Another individual may have had all teeth out with the exception of a few in the lower front region. Through the years the lower front jaw will tend to protrude, throwing the whole face out of alinement. All these and more deficiencies the dentist tries to correct when he is making the patient's false teeth. In correcting them, the dentist cannot go by previous *(Continued on page 76)*

Acute Rheumatic Fever

By PAUL A. WHITE

H. Armstrong Roberts

EXPOSURE TO COLD IS ONE OF THE SEVERAL FACTORS THAT ARE ASSOCIATED WITH THE CAUSE OF ACUTE RHEUMATIC FEVER IN YOUNG CHILDREN.

ACUTE RHEUMATIC FEVER was known to antiquity. Over 100 years ago Bouillaud established a "law of coincidence" between the occurrence of heart disease and acute articular rheumatism. Thus it has long been known that persons with this type of rheumatism are highly susceptible to heart damage and that these heart defects may more or less hamper an individual's physical activity during the rest of his life. These simple, well known facts emphasize how important it is that consideration be given to rheumatic fever so it may be more readily recognized and more intelligently treated and that as many as possible of its complications and recurrences may be prevented.

The fact that initial attacks of rheumatic fever occur during the most appealing years of childhood further enlists our sympathy. The frequency of attacks is greatest between the ages of 3 and 10. Girls slightly predominate as victims. The disease may recur at intervals during later years, but the symptoms of the first attack should be cautiously watched for, and heart involvement and other complications most carefully guarded against to prevent later disability.

The causes of acute rheumatism are multiple. No single organism has been definitely incriminated. The factors most usually associated as causes are exposure to cold, debility from undernourishment or preceding illnesses, recurring colds, sore throats and infections of the upper respiratory passages. Acute rheumatic fever is more common in cooler regions with changeable and often wet weather than in warmer, dryer sections of the country. Special care should be exercised to protect children during these months of the year.

A history of acute rheumatism in one's family should further heighten protective measures. If parents or near relatives have had this sickness or if other children in the family have had an attack, it is not improbable that another child in the same family will have it. Indeed two or three children in a family may have rheumatic fever at the same time.

Relatively few adults have rheumatic fever; but the onset in later years is usually rather abrupt with high fever, drenching sweats and hot, red, swollen, painful joints. Here there is no difficulty in recognizing the disease and instituting treatment. Similar acute attacks may occur in children. About a third of them may have colds, sore throats, pneumonia, scarlet fever or measles that precede rheumatic fever. In nearly half of the cases, however, the onset will be gradual over a period of weeks or months. These children complain of pain in the joints and may show a gradual swelling in the affected area. Often these symptoms are called "growing pains," and the real condition is overlooked. Pains that are not rheumatic fever affect the muscles of the legs and thighs or arms and not the joints. They occur more often at night and disappear in the morning. The child does not limp and may run his hand the full length of a limb in trying to locate the point of pain. Children with rheumatic infections can usually point directly to the joint involved, which may be slightly swollen. They usually limp because of pain in a joint, run a low grade fever, remain underweight, have a certain pallor and look undernourished. They may have abdominal pains, and care must be taken to distinguish these from appendicitis to avoid unnecessary operations. Nosebleeds often occur for no known reason. These nosebleeds may be severe and difficult to control. They should make one wonder whether rheumatic fever does not underlie them. These children tire easily; the pulse is rapid, and they often have night sweats. There are certain types of skin eruptions that accompany rheumatic fever. In some cases reddish, rounded, slightly elevated areas and in others, nodules varying in size from that of a pinhead to that of a hazelnut appear in or under the skin on the fingers, palms, neck, fore-

head, chest or cheeks. Bluish spots sometimes appear in crops on the legs and arms, last for a number of weeks and disappear without blemish.

Another condition called chorea, or St. Vitus's dance, sometimes precedes or follows attacks of acute rheumatism. This is shown first by increased nervous irritability of the child. There may be crying spells and terrifying dreams, and a formerly quiet child may become cross and wilful with emotional outbreaks. Then begin short, jerky, irregular movements of the arms, hands and often the legs. These may become violent at times. Speech is often interfered with, and there is general muscular weakness. These attacks usually terminate favorably with proper treatment and with removal of the child from all exciting factors in his environment and associations that precipitate nervous irritability. It may even be necessary to remove him from his own family.

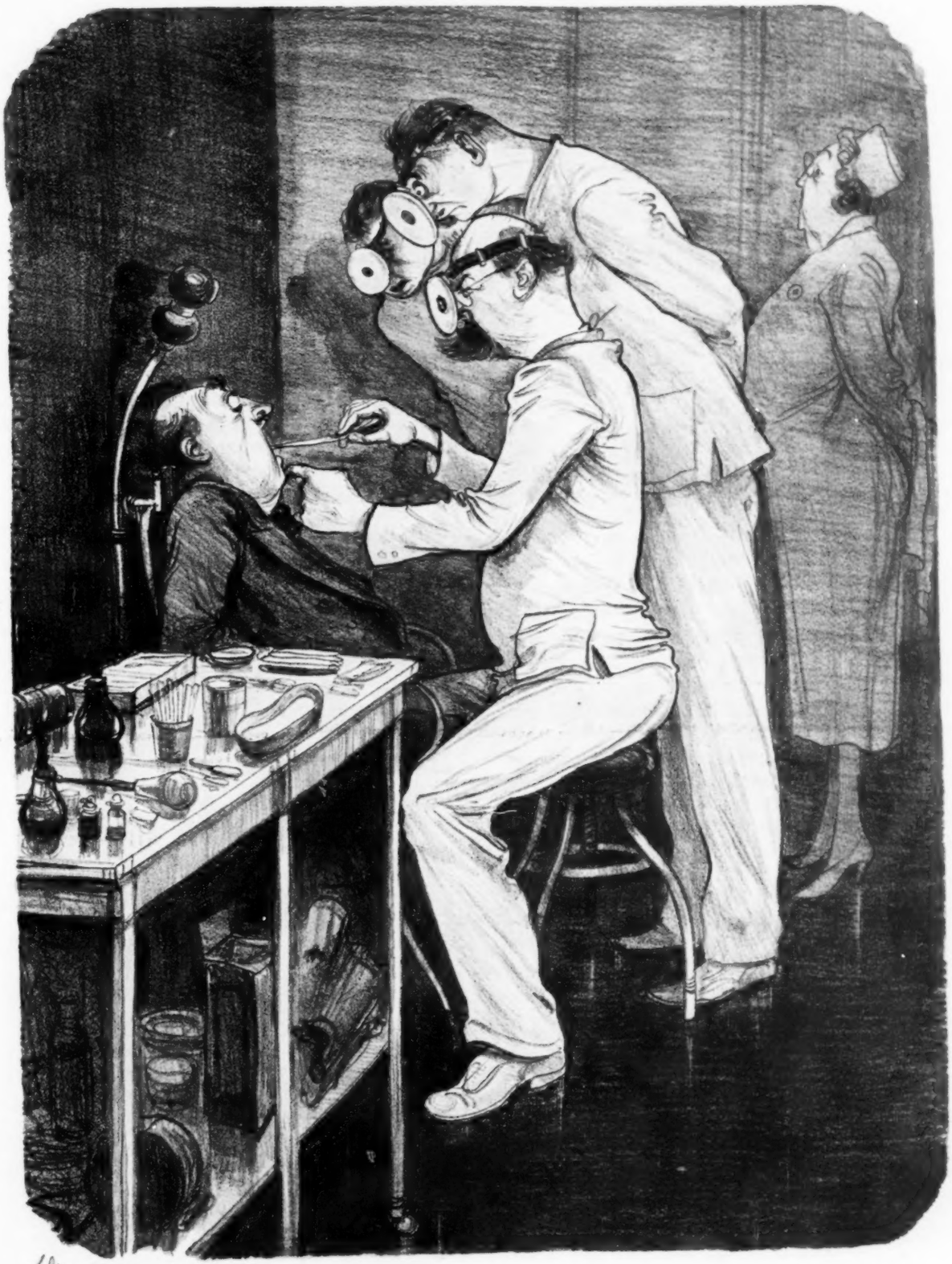
Acute rheumatism shows a high incidence of recurrence. More than half the children who have an initial attack will have subsequent attacks. Months or years may intervene between these recurrences. It has been shown, however, that no matter how swollen and inflamed the joints may be or how long the enlargement persists in this disease, when recovery comes it is complete so far as the joints are concerned. There are no permanent changes, and chronic deforming arthritis does not develop from acute rheumatism.

Almost any organ or tissue in the body may suffer with accompanying inflammation during an acute rheumatic attack. The kidneys may be affected; pleurisy may occur with production of fluid. Eruptions on the skin and irritation of the nervous system have been mentioned. The organ most closely associated in its damage, apparently from the same infection that causes acute rheumatism, is the heart. Unfortunately, while the effects of the disease in the joints may entirely disappear, at least so far as function and usefulness are concerned, the heart nearly always acquires some degree of permanent damage. This may not be great enough to interfere in any way with an active physical or mental life. It may, however, be sufficient in some instances to force physical activity to be sharply limited if this person is to avoid all the inevitable disagreeable symptoms that occur when a heart is forced to work beyond its capabilities. These matters are of great importance because of the delicate structure of the heart, the minute adjustment of its valves and the necessity for it to receive and expel a definite volume of blood each minute in order to maintain life in the body's cells.

The inflammation attacks the delicate lining of the heart and runs out on the valves, which are as thin and pliable as silk. These edges fit so accurately when they are thrown back by a rush of blood from a heart muscle contraction that they are water-tight. When the inflammation subsides, however, and scar tissue replaces the normal valve structure, the edges wrinkle and warp, and they no longer fit together so accurately as to be water-tight or blood-tight. With each contraction of the heart some blood rushes back through the opening through which it just came. This blood must be pumped again, or more must be pumped each time in order to make up for this loss. So the heart must either enlarge or pump faster, or do both, otherwise congestion back along the course of the blood current will occur. Thus there will be a backing up in the lungs, liver, abdomen and even the legs, arms and face if the heart falls far behind in its work. Not only do the valves fail to fit accurately when deformed by scarring, but they sometimes become so stiffened that they interfere with the blood flow past them when they naturally should drop back completely along the vessel wall as the stream goes by. This makes more work for the heart. Moreover, the heart muscle itself often becomes inflamed, and its tremendously strong but delicate fibers are replaced by scar tissue. This weakens its walls just at the time when more work is being forced on the heart by defective valves. It is easy to see that heart failure is a grave possibility unless every protective precaution is taken. Even the lifting of a hand makes more work for the heart. These considerations should impress on every one's mind the necessity for enforcing the amount of lessened activity that will allow the heart to do its work. This may mean weeks or months in bed for some children; but if they can thus insure a relatively sound heart for their future life, it is time well spent.

While a definite organism causing rheumatic fever is not known, its beginning is often associated with tonsillitis, sore throats and nasal infections. Children who have repeated attacks of this sort should have the tonsils removed and other infections cleared up if possible. This lessens the incidence of the disease and diminishes the chances of recurrences if there has been one attack.

Acute rheumatic fever is a serious disease which may have either an abrupt or a gradual and insidious onset. It may involve many organs, but its effect on the heart is the most impressive and fraught with the gravest possibilities for limiting future physical activity. The tendency to recurrence even after the lapse of several years should be remembered, and every precaution should be taken to protect a child who has had one attack. Proper clothing, adequate nourishment, avoidance of exposure and infections, and care not to place too many burdens on these little people, especially those who are eager and alert and possibly frail, are the best possible preventive measures.



"AH - AHH - AH"

Reducing Diets

By E. M. GERAGHTY

FOR SAFE REDUCTION, NOT TOO FAST.
CONSULT YOUR DOCTOR, FIRST AND LAST.

THE FASHION dictators of recent years have had enough influence on feminine public opinion to center attention on weight and line. The reducing diet has become a fad and many persons who have reduced unwisely have found impaired health and lowered resistance the price of a pencil-like outline. However, for the few who have reduced unwisely, there are many who have stored up excess fat as a result of overeating. Many of these need a lowered food intake and in reducing are carrying out their doctor's orders. To all persons desiring a change in weight certain factors should be emphasized:

1. A considerable change in weight, either addition of weight or reduction of weight should not be attempted without consulting a physician.

2. Diet alone should not be depended on, but the whole mode of life should be carefully adjusted. Lowered food intake will cause a loss of weight, but exercise may take off inches and put the muscles into better tone.

3. Each person desiring to reduce should be put on an individual diet; but generally speaking, weight loss will be achieved by a decrease of from 800 to 1,200 calories from the previous diet.

4. A person on the first week of a reducing diet may show a loss of 3 or 4 pounds, but the amount of decrease should stabilize in about two weeks to not more than 2 pounds each week.

5. It should be planned to carry the reducing program over a period of months and not attempt to lose too much in a short time. There should be a definite check-up by a physician once a month until the diet is stabilized at the desired weight.

6. Remember that calories are not the only measuring stick for food. They are to be lessened without any decrease (or perhaps some increase) in dietary essentials.

7. There should be from 1 to 1.5 Gm. of protein for each 2⅕ pounds of proper weight. The better reducing diets of today are high in protein. It is believed that the specific dynamic action of protein tends to speed up metabolism and thus use up more energy. This in turn will cause greater reduction of weight on a definite food intake than would be the case if a lower percentage of the total calories were to be secured from protein. If you should weigh 132 pounds you will need from 60 to 90 Gm. of protein daily except in an unusual condition. If you should weigh 154 pounds you will need from 70 to 105 Gm. of protein daily, except in an unusual condition. Here is a table of average servings of the best sources of protein for a reducing diet:

Food and Amount	Grams Protein
Bacon (three strips, 4 inches long)	7
Beef, corned (average serving)	9
Beef, dried (three slices, 7 by 3 inches)	9
Beef, roast, cold (average serving)	8
Beef, roast, hot (average thick slice)	16
Broiler (one-half)	21
Fowl (average serving)	13
Ham, roast, cold (average serving)	7
Ham, roast, hot (average thick slice)	22
Lamb chop, single (one)	12
Lamb, roast (average serving)	12
Liver, calf, (2 slices)	20
Liver, lamb (2 slices)	24
Liver, chicken (average liver one chicken)	11
Steak, round (⅛ pound-¼ cup ground)	13
Steak, tenderloin (average)	19
Veal, roast (average slice)	12
Haddock, fillet (average serving)	15
Shad (average serving)	23
Halibut steak (average serving)	17
Shadroe (half pair)	18
Crab meat (½ cupful)	14
Lobster meat (½ cupful)	16
Oysters, solids (½ cupful)	8
Shrimp (twelve)	15
Longhorn cheese (one slice)	6
Cottage cheese, dry (¼ cupful)	14
Swiss cheese (one slice)	11
Egg, whole (one)	6
Egg, white (one)	3
Milk (6 ounces)	6
Milk (½ pint)	8

8. A pint of whole milk, skimmed milk or buttermilk or the equivalent should be averaged for daily intake.

A WILL OF IRON IS NEEDED TOO:
FOREGO THOSE TIDBITS: THEY'LL FATTEN YOU.

9. Vitamins should be included in the diet as follows:

a. Get vitamin A from green and yellow vegetables, eggs, liver, tomatoes, yellow fruits, salmon, cheese, milk and butter.

b. For vitamin B_1 use liver, kale, spinach, cabbage, oysters, meat, oranges, pineapple, eggs, milk, tomatoes, string beans and apples. Additional vitamin B_1 may be secured by taking yeast if and when ordered by the doctor.

c. Vitamin C will be provided by oranges, lemons, grapefruit, tomatoes, raw cabbage, apples, pineapple and lettuce.

d. Get plenty of direct sunlight for vitamin D. If sunshine is not available, use vitamin D milk or some form of fish liver oil daily. If your calory allowance is so low that you use skimmed milk and you do not want the fat of cod liver oil, which is about 4 Gm. fat to each teaspoonful, use fish liver oil with viosterol for additional vitamins A and D. Doses of cod liver oil or other fish liver oils should be prescribed by the physician.

WATCH OUT—YOU'RE SKIDDING!
IT'S ONLY YOURSELF THAT YOU ARE KIDDING!

e. For vitamin G use spinach, kale, Swiss chard, lean beef, milk, broccoli, eggs, oranges, cabbage, lettuce and romaine.

10. There should be sufficient bulk to induce normal bowel action each day.

11. Minerals should be included. One pint of milk, together with cheese, eggs and vegetables, will supply sufficient calcium. The eggs, liver, lean beef, asparagus, string beans, cabbage, spinach, chard and other greens will provide iron. If you are on an extremely low diet ask your physician whether or not your iron intake is sufficient. Phosphorus will be supplied by the milk, cheese, fish, oysters, shrimp, beef, eggs, string beans, asparagus, cabbage, carrots, cauliflower, celery, spinach, chard and other greens, cucumbers, grapefruit, oranges, peaches, pears, pineapple, raspberries, strawberries and tomatoes.

WAVE YOUR ARMS, FLEX YOUR WAIST.
SLIMNESS GAINING, MUSCLES BRACED.

12. Keep butter, cream and other fats at a minimum.

13. Avoid excess of sugar, jams, jellies and nuts.

14. Do not eat fried foods.

15. Drink from six to eight glasses of water daily.

16. Watch your habit of reaching for a cookie, an extra piece of fruit or a piece of candy. Eat sensibly and remember the saying, "A second on the lips is a lifetime on the hips!"

17. Weigh at the same time of day and with approximately the same amount of clothing each time. The first thing in the morning is a good time to do it. Do not get discouraged if you go up 2 pounds one day even though you know you have eaten wisely. There may be extra fluid in your body. It is your weekly weight record which counts.

1,000 Calory Diet

The 1,000 calory diet should have about 80 Gm. protein, 50 Gm. fat and 70 Gm. carbohydrate.

TO DRINK SIX GLASSES OF WATER A DAY
IS RULE FIFTEEN, THE DOCTORS SAY.

Here is a table listing the foods suggested and giving the grams of protein, fat and carbohydrate in an average serving of each item.

	Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Beverages					
Buttermilk	6 ounces	5	1	9	65
Coffee	as desired				
Evaporated milk (For coffee if especially desired)	2 tablespoonfuls	2	3	3	47
Skimmed milk	6 ounces	6	1	9	69
Whole milk	6 ounces	6	7	9	123
Whole milk	½ pint	8	10	12	170
Tea	as desired				
Soups					
Beef broth	as desired				
Bouillon, no fat	as desired				
Celery and tomato	6 ounces	4	..	5	36
Chicken broth, no fat	as desired				
Consommé, no fat	as desired				
Consommé, jellied	as desired				
Consommé, ruby	6 ounces	2	2	5	44
Cucumber and tomato	6 ounces	2	..	5	28
Oyster stew	6 ounces	8	8	8	136
Tomato	6 ounces	4	..	5	36
Tomato juice, hot	6 ounces	2	..	4	24
Vegetable soup, average	6 ounces	1	11	9	139
Vegetable soup, no fat	6 ounces	1	1	9	49
Eggs					
Caviar	average serving	2	1	1	21
Hard cooked	1 egg	6	6	..	78
Soft cooked	1 egg	6	6	..	78
Omelet, plain	2 eggs–1 pat butter	12	21	..	237
Omelet, mushroom	2 eggs–1 pat butter	12	21	..	237
Omelet, Spanish	2 eggs–1 pat butter	12	21	4	253
Poached	1 egg	6	6	..	78
Scrambled over water	2 eggs	12	12	..	156
Shadroe	½ pair	18	3	2	107
Meats					
Bacon, crisp	2 strips	5	10	..	110
Bacon, crisp	3 strips	7	15	..	163
Beef, dried	3 thin slices	9	2	..	54
Beef, hash, baked	½ cupful	13	5	..	97
Beef, ground, pattie	1	9	3	2	71
Beef, kidney	average serving	10	2	..	58
Beef, loaf, jellied	average slice	13	5	..	97
Beef, pot roast, cold	average thin slice	4	2	..	34
Beef, pot roast, hot	average thick slice	13	5	..	97
Beef, rib roast, cold	average thin slice	8	4	..	68
Beef, rib roast, hot	average thick slice	16	8	..	136
Beef steak, tenderloin	1	19	29	..	337
Chicken à la king	½ cupful	8	19	4	219
Chicken, broiled	½	21	3	..	111
Chicken, cold sliced	average serving	13	11	..	151
Chicken, pressed	average slice	13	11	..	151
Chicken or turkey, roast	average serving	13	11	..	151
Ham, cold roast	average thin slice	7	8	..	100
Ham, hot roast	average thick slice	22	23	..	295
Lamb chop	½ inch thick	12	18	..	210
Lamb, roast	average serving	12	8	..	120
Liver, calf, broiled	2 slices	20	6	..	134
Liver, chicken, broiled	from one chicken	11	2	..	62
Liver, lamb, broiled	2 slices	24	10	..	186
Pork chop, lean	average one	24	23	..	303
Squab, broiled	average	21	3	..	111
Sweetbreads, broiled	½ average pair	19	13	..	193
Tongue, cold sliced	2 slices	12	7	..	111
Veal chop	average one	24	9	..	177
Veal loaf, jellied	average serving	12	4	..	84
Veal, roast	average serving	12	4	..	84
Gravies					
Meat gravies with fat skimmed off and no thickening added. This is usually known as "pan gravy"	No food value				
Fish (baked, broiled or boiled)					
Clams	12	32	4	6	188
Crab cake	average one	7	3	2	63
Crab meat	½ cupful	14	2	2	82
Haddock	average serving	15	..	..	60
Halibut steak	average serving	17	6	..	122
Lobster meat	½ cupful	16	..	..	64
Oysters, standards	½ cupful	8	2	4	66
Salmon, canned	½ cupful	28	16	..	256
Salmon, jellied	average serving	14	7	11	166
Shad	average serving	23	12	..	200
Shrimp	12	15	1	..	69
Sole, filiet	average serving	11	6	..	98
Cheese					
American	1 thin slice 3″ by 3″	3	5	1	61
American	1 one-inch cube	3	5	1	61
Cottage, dry	¼ cupful	14	..	..	56
Longhorn	½ thin slice	3	5	1	61
Longhorn	1 one-inch cube	3	5	1	61
Roquefort	1 one-inch cube	3	4	..	48
Swiss	1 thin slice	11	14	1	174
Fruits					
Apple	1 small (4 to lb.)	..	..	15	60
Apple	1 large (3 to lb.)	1	1	21	97
Apricots, fresh	3 medium	1	..	12	52
Blackberries	1 cupful	1	1	8	45
Blueberries, fresh	1 cupful	..	..	20	80
Canteloupe	average serving	1	..	10	44
Fruits					
Canteloupe balls	12	1	..	12	52
Cherries, sweet, fresh	12	1	..	9	40
Cranberries (cooked with very little sugar)	½ cupful	..	..	15	60
Grapefruit	average half	..	..	9	36
Grapefruit sections	6	..	..	9	36
Grapes, American	1 small bunch	1	1	14	69
Grapes, European type	14	1	..	15	64
Honeydew	⅛ average melon	1	..	15	64
Honeydew balls	12	1	..	14	60
Nectarines, fresh	1 medium	1	..	12	52
Orange	1 small	1	..	11	48
Orange	1 large	1	..	15	64
Orange sections	12	1	..	11	48
Peach, fresh	1 small	..	..	10	40
Peach, fresh	1 medium	1	..	18	76
Peach, fresh	1 large	1	..	25	104
Pear, fresh	1 medium	1	..	18	76
Pear, canned	1 half	..	..	12	48
Persimmon, fresh	1 medium	1	1	25	113
Pineapple, fresh	¾ cupful diced	..	..	13	52
Pineapple, fresh	1 average slice	..	..	13	52
Plum, fresh	3 medium	1	..	11	48
Plum, canned	1	..	..	14	56
Prunes, stewed	5 medium	1	..	28	116
Raspberries, fresh, black	1 cupful	2	2	12	74
Raspberries, fresh, red	1 cupful	1	1	12	61
Rhubarb	1 cupful diced	1	..	5	24
Strawberries, fresh	1 cupful	1	1	7	41
Tangerine	1 medium	1	..	11	48
Watermelon	½ slice ¼″ thick	1	..	12	52
Watermelon balls	12	1	..	8	36
Vegetables, cooked (1 teaspoonful fat is allowed for all vegetables to be served hot unless it is definitely specified "no fat")					
Artichoke, French	average	3	4	9	84
Asparagus	6 stalks	1	4	2	48
Beet greens	⅔ cupful cooked	2	4	4	60
Broccoli	average serving	3	4	4	64
Brussels sprouts	6 medium	4	5	8	93
Cabbage	⅙ average head	2	4	5	64
Carrot balls	8	1	4	8	72
Carrot cubes	⅔ cupful	1	4	4	56
Carrot strips	15	1	4	4	56
Cauliflower	⅔ cupful	2	4	4	60
Kale	⅔ cupful	4	5	6	85
Mushrooms (Allow only for fat used)	as desired	..	4	..	36
Okra	6 large pieces	1	4	3	52
Onions, baby, steamed	6	1	4	10	80
Onions	2 medium	1	4	10	80
Sauerkraut	½ cupful	1	4	3	52
Spinach	⅔ cupful	3	4	3	60
Squash, summer	average serving	1	4	3	52
String beans	20 or ⅔ cupful diced	2	4	6	68
Swiss chard	⅔ cupful cooked	1	4	3	52
Turnips	⅔ cupful diced	1	4	6	64
Vegetables, raw					
Cabbage, shredded	1 cupful	1	..	3	16
Carrot strips	15	1	..	4	20
Celery heart	1 heart	1	..	2	12
Chicory	average serving	1	..	1	8
Cucumber	8 slices ⅛″ thick	..	..	1	4
Endive	average serving	..	..	1	4
Lettuce	½ small or ¼ large head	1	..	2	12
Lettuce	5 average leaves	1	..	1	8
Onions	6 small	1	..	10	44
Onion	1 medium	1	..	5	24
Radishes	3 average	..	..	1	4
Romaine	average serving	1	..	1	8
Tomato	1 medium	1	..	4	20
Watercress	average serving	1	..	1	8
Fruit and Vegetable Juices					
Cranberry juice	3 ounces	..	..	6	24
Cranberry pineapple cocktail (2 oz. cranberry juice 1 oz. pineapple juice)	3 ounces	..	..	8	32
Cranberry orange cocktail (2 oz. cranberry juice 1 oz. orange juice)	3 ounces	..	..	7	28
Grape juice, Concord	3 ounces	..	..	14	42
Grapefruit juice	3 ounces	..	..	9	36
Orange juice	3 ounces	..	..	10	40
Pineapple juice	3 ounces	..	..	11	44
Tomato juice	3 ounces	1	..	2	12
Salads					
Made with allowed fruits and vegetables					
Salad Dressings					
None except lemon juice or vinegar					
Fats					
Only enough to make vegetables acceptable					
Miscellaneous					
Celery heart stuffed with Roquefort cheese		4	4	2	60
Cocktail sauce	¼ cupful	1	..	4	20
Clam and tomato juice cocktail (Equal parts of clam juice and tomato juice)	3 ounces	1	..	2	12

Here are seven days' menus for the 1,000 calory diet. These menus provide an intake which compares with accepted standards as follows:

	Accepted Standard of Weekly Requirement	Provided by These Menus
Vitamin A	42,000 Sherman units	121,370 Sherman units
Vitamin B_1	4,200 Sherman units	4,495 Sherman units
Vitamin C	1,050 Sherman units	1,537 Sherman units
Vitamin G	4,200 Sherman units	4,665 Sherman units
Calcium	4.76 Gm.	6.6492 Gm.
Phosphorus	9.24 Gm.	11.08462 Gm.
Iron	0.105 Gm.	0.1371 Gm.

The method of preparing the foods so designated * in these tables is described elsewhere in this article.

Menu for Sunday or Holiday

Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Breakfast				
Honeydew melon ... ⅛ average melon	1	..	15	64
Eggs, poached ... 2	12	12	..	156
Broiled thin ham ... 1 slice	7	8	..	100
Skimmed milk ... 6 ounces	6	1	9	69
Coffee ... as desired				
Dinner				
*Tomato frappé ... average serving	1	..	2	12
Broiled chicken ... ½	21	3	..	111
Mushrooms ... ½ cupful	..	4	..	36
French artichoke ... average	3	4	9	84
String beans, no fat ... 20 or ⅔ cupful	2	..	6	32
Fresh fruit salad				
Lettuce ... 5 leaves	1	..	1	8
Orange sections ... 6	..	..	5	20
American cheese ... 1 one-inch cube	3	5	1	61
Coffee ... as desired				
Supper				
Bouillon ... as desired				
Cold sliced tongue ... 2 slices	12	7	..	111
*Cucumber sauce ... average serving	..	..	1	4
Lettuce ... 5 leaves	1	..	1	8
Asparagus tips ... 6	1	..	2	12
Lemon quarters and pimento strips				
Hard cooked egg ... 1	6	6	..	78
Fresh peach, sliced ... 1 small	..	..	10	40
Tea or coffee ... as desired				
Before Bed				
Skimmed milk ... 6 ounces	6	1	9	69

Menu No. 2

Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Breakfast				
Grapefruit ... 1 half	..	..	9	36
Scrambled eggs ... 2	12	12	..	156
(Scrambled over water)				
Chicken livers ... 2	22	4	..	124
(Boiled and mixed with eggs)				
Coffee ... as desired				
Lunch				
Vegetable soup, no fat ... 6 ounces	1	1	9	49
Cold roast ham ... 1 slice	7	8	..	100
(Do not eat fat part)				
Head lettuce ... ¼ large head	1	..	2	12
Lemon slice				
Milk ... ½ pint	8	10	12	170
Tea or black coffee ... as desired				
Dinner				
Jellied consommé ... as desired				
Hot rib roast of beef ... average slice	16	3	..	136
(Do not eat fat part)				
Carrot strips ... 15	1	4	4	56
Cabbage ... ⅛ average head	2	4	5	64
Lettuce ... 5 leaves	1	..	1	8
Tomato quarters ... 1 tomato	1	..	4	20
Garnish with parsley and alternate slices of radish and cucumber	..	..	2	8
Canned pear half with red cherry center	..	..	12	48
Coffee ... as desired				
Before Bed				
Skimmed milk ... 6 ounces	6	1	9	69

The luncheon menus have been kept to items easily secured for workers who eat in restaurants or who carry their lunches. Also this simplicity will be a boon to the busy housewife who eats alone at home. Whole milk is indicated at luncheon because it might be difficult to secure skimmed milk downtown.

Menu No. 3

Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Breakfast				
Grapefruit ... ½	..	..	9	36
Shadroe, broiled ... ½ pair	18	3	2	107
Coffee ... as desired				
Lunch				
Ground beef pattie ... 1	9	3	2	71
Head lettuce ... ¼ large head	1	..	2	12
Lemon quarter				
Milk ... ½ pint	8	10	12	170
Fresh peach, sliced ... 1 small	..	..	10	40
Tea or coffee ... as desired				
Dinner				
Bouillon ... as desired				
Celery heart ... 1 heart	..	..	2	12
Broiled steak ... 1 tenderloin	19	29	..	337
Baked summer squash ... average serving	1	4	3	52
Spinach, no fat, with lemon ... ⅔ cupful	3	..	3	24
Lettuce ... 5 leaves	1	..	1	8
Fresh pineapple cubes ... ¾ cupful	..	..	13	52
Mint				
Garnish with paprika-flecked cottage cheese balls use ¼ cupful dry cottage cheese	14	..	..	56
Coffee ... as desired				
Before Bed				
Skimmed milk ... 6 ounces	6	1	9	69

Menu No. 4

Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Breakfast				
Orange cut in halves ... 1	1	..	11	48
Broiled calves' liver ... 2 slices	20	6	..	134
Crisp bacon ... 1 slice	3	5	..	57
Coffee ... as desired				
Lunch				
Vegetable soup, no fat ... 6 ounces	1	1	9	49
Cold roast beef ... 1 slice	8	4	..	68
(Do not eat fat part)				
Head lettuce ... ¼ large head	1	..	2	12
Milk ... ½ pint bottle	8	10	12	170
Tea or coffee ... as desired				
Dinner				
*Chilled ruby consommé ... 6 ounces	2	2	5	44
Veal chop ... 1 average	24	9	..	177
Asparagus, no fat ... 6 stalks	1	..	2	12
Carrot cubes ... ⅔ cupful	1	4	4	56
Lettuce ... 5 leaves	1	..	1	8
Grapefruit sections ... 6	..	..	9	36
Garnish with white grapes	..	..	7	28
American cheese ... 2 one-inch cubes	6	10	2	122
Coffee ... as desired				
Before Bed				
Skimmed milk ... 6 ounces	6	1	9	69

The "going without breakfast" idea should be frowned on. For business men and women, the forenoon should be the most productive part of the day.

Menu No. 5

Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Breakfast				
Fresh peach, sliced ... 1 small	..	..	10	40
Poached egg ... 2	12	12	..	156
Crisp bacon ... 2 strips	5	10	..	110
Coffee ... as desired				
Lunch				
Cottage cheese, dry ... ½ cupful	28	..	..	112
Head lettuce ... ¼ large head	1	..	2	12
Grated raw carrot ... average serving	1	..	4	20
Milk ... ½ pint	8	10	12	170
Baked apple, no sugar ... 1 small	..	..	15	60
Hot tea or coffee ... as desired				
Dinner				
Jellied consommé ... as desired				
Celery heart ... 1 heart	1	..	2	12
Broiled sweetbreads ... ½ pair	19	13	..	193
Swiss chard ... ⅔ cupful	1	4	3	52
Sliced tomato ... 1	1	..	4	20
Watercress ... 1 bunch	1	..	1	8
Orange slices ... 1 orange	1	..	11	48
Coffee ... as desired				
Before Bed				
Skimmed milk ... 6 ounces	6	1	9	69

American and cottage cheese are often included in the menu because they are easily obtained in restaurants and the amount is easily indicated. Also they are stable—not prepared one way one day and another way the next; consequently they do not vary greatly in their caloric content. *(Continued on page 59)*

Beating Trouble to the Punch

By EDWARD D. NIX

Doubly armed is the patient who knows his own doctor—and whose doctor knows his patient

FROM THE TIME he enters medical college until the time he completes his internship the medical student has constantly drilled into him the fact that people differ, that he must attack a known disease in terms of the individual peculiarities of the particular patient, and that the problem of the diagnostician in determining the kind of disease the patient has is no more important than the problem of determining the kind of patient that has the disease.

Medical literature on this subject is apt to place too little rather than too much weight on the related problem of helping the patient find out what kind of a doctor he has, so that no time need be lost in giving him the confidence and fighting ability he needs and which only mutual faith and understanding can develop.

Knowing these things to be true, it is no credit either to the intelligence of the medical profession or to the foresight of the intelligent layman that professional codes on the one hand and lay ignorance and inertia on the other have failed to set up an entirely natural and universal process for building a closer lay-professional relationship and to furnish better odds for the selected doctor and the selected patient in our universal war against illness of any character or medical emergency in any place.

WE HAD ASKED FOR A HOUSE CALL BECAUSE WE WANTED TO HAVE HIM MEET THE CHILDREN WHILE WE WERE ALL WELL AND COULD PROPERLY GET ACQUAINTED.

This selection should be mutual. It should be arrived at under normal conditions and not in a moment of emergency. If professional codes make it impracticable for the physician to seek out his patients in advance of their need, there is certainly no law to prevent the layman from seeking out his doctor and seeking, if necessary, until he finds one that satisfies his idea of the kind of a doctor he wants to use as the key man in whatever need he or his family may face in the future.

When the layman waits until the moment of need is already pressing him, he has already waited too long, in most cases, to seek his medical adviser wisely or to give that adviser the important advantage that would help even the best man in meeting the situation with a quick and accurate definition of the best plan of battle.

It is no wonder that mental, spiritual, physical and financial values are so often confused under such circumstances. The promotion of the idea of the socialization of medicine is perhaps in large part the result of the layman's recognition of his failure at establishing a satisfactory professional relationship, on the one hand, and the restrictions against a really good professional man taking the initiative. "Socialization" is no substitute. It lacks appeal as an easy solution for those who have been through the medical mill. I want to know my doctor—and I want him to know me. With acquaintance once established with good medical men, I have found it easy to become acquainted with good men *anywhere* in advance of need and "for use as required."

"Old Devil Disease" is no respecter of persons. He stabs in the back, hits below the belt, attacks the referee as well as the patient and violates the rules of the Marquis of Queensberry in every foul or vicious way.

The socialization of medicine may appeal to those who are unwilling to help themselves, at

least in theory. But any layman who is willing to take the trouble to do it can establish a personal professional relationship that will help him beat trouble to the punch whenever a moment of need arrives.

The initiative must be the layman's. The formula I am suggesting is one I discovered after costly blundering years ago. It has worked for my family in three changes of residence. It's yours for nothing. You are only required to pay a house call fee to the physician who helps you put it in operation. It carries many compensations too intimate and too involved to be developed here. The value of its practical dividends you can judge from the two incidents recorded. But don't overlook the fact that my own blunders in the beginning taught me the necessity for one complete and right professional relationship. Once established, it need never be lost, and one need never proceed blindly in a strange place without one good man standing by to direct everything—your personal partner and guardian who is already beating your trouble to its punches.

Taking the initiative himself, the layman must cooperate in a common sense way with a common sense physician. For example, in asking a physician for advice affecting other physicians, don't ask "What do you think of Doctor X?" Ask first for the suggestion of "two or three good men." The answer will probably come in the form of "Dr. A" or "Dr. B" or "Dr. C," or even "I don't know, but if you will call me tomorrow I'll be glad to suggest some one."

Whatever the details, your starting point in a strange land is "Dr. A." Keep the names of "B" and "C" though you will probably never need them.

Although my own relationship with my physician was a close one, long established, I needed to ask no more when business required some five years ago that I move my family to Chicago.

As soon as we were settled in our new home in a north shore Chicago suburb, I talked to my wife and our three children one Saturday morning and then telephoned the office of "Dr. Bailey"—the Dr. "A" on my list. He is a nationally famous man, and I must confess I shared the qualms my wife expressed at my procedure. I didn't know what he might cost or whether he might be interested in what I could afford to pay. I did specify that he was to call at my

WHEN THE LAYMAN WAITS UNTIL THE MOMENT OF NEED IS ALREADY PRESSING HIM, HE HAS ALREADY WAITED TOO LONG, IN MOST CASES, TO GIVE HIS DOCTOR THE IMPORTANT ADVANTAGE OF PREDETERMINING THE BEST PLAN OF ACTION.

home that afternoon *only* in the event he had time to do so conveniently, as there was no emergency.

With the two younger children scrubbed and dressed and my wife and elder daughter somewhat amused at my growing embarrassment and repeated recital of cues to the youngsters, we awaited his arrival.

He turned out to be a little man in stature, looking at us in some bewilderment over the tops of his spectacles as it was gradually made clear to him that all the children were in the room—there was no sick child upstairs—and that we had asked for a house call because we were strangers and wanted to meet him and have him meet the children while every one was well and could properly get acquainted.

In the hour that followed, the children became so enamored with this modest, gentle leader in his specialized field that they quite forgot the cues with which they were to have indicated their approval or disapproval to me.

It developed during this personal acquaintance visit that the incident was the first of its kind he had ever experienced. It was with some difficulty I persuaded him that the only basis on which we could proceed was that he charge me his regular house call fee for the visit.

That call cost me exactly $10. In the five years in which this relationship has been further developed "as required" between the children and "their" doctor, it has been worth a great deal more and continues strictly personally as one of the happiest relationships we have yet established in this busy, hurried city, where "personal" relationships are apt to be hurried too.

But life goes on—for adults as well as for children.

For my general physician, my adviser in St. Louis had told me I might like a younger man than "Dr. Rufus" but that I couldn't find a better as my "family physician" and general medical adviser.

You can judge the value of this advice for yourself.

So I called Dr. Rufus in like manner. Both my wife and I had adopted him as our counselor and friend several minutes before he had recovered from his astonishment at having lived to see the day when a layman would go to the trouble of hunting out his physician in advance of need.

We followed this with separate visits to his office for a general checking over—and never saw him again for over a year.

It was about 4 o'clock in the morning. We had no "neighbors" to turn to, no old friends to offer advice.

For a week I had been fighting a fever and what I thought was "flu." And during the week I had covered the requirements of two clients at a national convention. Home that night, I awoke in that struggle for breath against pain that one quickly recognizes as pneumonia, once one has experienced it. I can only remember calling to my wife to get Dr. Rufus at once. Then pain and fever and delirium took me.

But Rufus knew where to come and to whom he was coming. He had been given all the authorization he needed in advance. An ambulance took me to the hospital. It was near noon that day when the red whirling wheels and devils cleared away enough for me to catch one glimpse of reality.

I saw Dr. Rufus. White-jacketed men and a nurse were with him. Gray walls above. A hospital. How—or where—or when—I didn't care; for Rufus was there. Then he saw me watching with rational eyes and bent over me. I tried to stay with him.

"Keep drinking ice water—keep drinking ice water—you'll have to help me—this is Dr. Rufus—you'll have to help me—I'll do everything we can—but you have to help me—keep fighting—keep drinking ice water." Then the red whirling wheels and devils blocked out Dr. Rufus.

But my friend and physician had told me to "keep fighting—keep drinking ice water."

Three days later I won a $5 bet from two interested interns who were rash enough to wager I couldn't empty three pitchers of ice water on top of what I had just finished drinking.

Ten days later I was back home and was grateful to Dr. Rufus for being pleased with me. It's nice to have your doctor tell you that you have been a good patient. Of course it's part of his medicine; but there are all kinds of ways of dispensing all kinds of medicine.

A happy, restful convalescence. Dear old Dr. Rufus—I owe him in gratitude much more than I could ever pay him in money. But one's debts to the "good" doctors don't end with single instances.

Another year or more passed, and my wife and I had just reminded each other it was about time we called at Dr. Rufus' office for an annual looking over. Then I went to Michigan on business—out to a lakeside camp some 11 miles from the nearest town. My family was at home in Chicago.

As we were seated at dinner a messenger arrived. Dr. Rufus had phoned me at this little town and had found a messenger who knew where the camp was. I was not to be worried, not to do any wild driving, but was to phone him at the Blank Hospital within thirty minutes. If I couldn't do this, then phone as soon as I could.

"It's taken us eighteen minutes to get here, Ed," my friend and messenger apologized, "but he said to tell you not to drive fast."

Altogether, though shocked, I was quite reassured. Rufus meant it was my wife or my mother. "The Blank *(Continued on page 82)*

ALBERT'S EARLY YEARS WERE LIVED AMONG HIS BOOKS, EVEN TO THE EXCLUSION OF FRIENDS.

Portrait of a Quack

By ERNEST W. PAGE

IF SOME ONE were to set about the task of selecting the greatest medical quack in history, he would find a long list of colorful competitors. The mountebanks of old London, peddling their mystic wares on the street corners, the alchemists, bone setters and plague quacks of the seventeenth century would rival for first honors our modern back pushers, toe twisters, food faddists and radio broadcasting cancer "specialists." Since the time of Elisha Perkins, who convinced a fair proportion of the population in New England, including George Washington, that his magic metallic tractors would "draw the poisons from their systems," America has been the breeding ground of pseudoscientists. With the advance of rapid methods of communication, a modern quack may spread his fame world wide in a few weeks; whereas the quack salvers of old London depended on handbills and hawkers. Except for these changes in advertising mediums, the basis of all such humbuggery remains the same.

In recent times, our country has produced no greater charlatan than Albert Abrams, A.M., M.D., F.R.M.S., the founder of the "electronic" and "radionic" hokum that still flourishes among many medical cults. People have wondered in recent years what could have transformed this respectable man of science into an incorrigible quack. There are rumors that his "brain snapped," that he suddenly became insane, but this is an explanation too simple to withstand critical analysis. The fact is that Abrams' mind remained keen to the end, and that is why his transition from an honorable physician to a disreputable quack is so interesting to analyze.

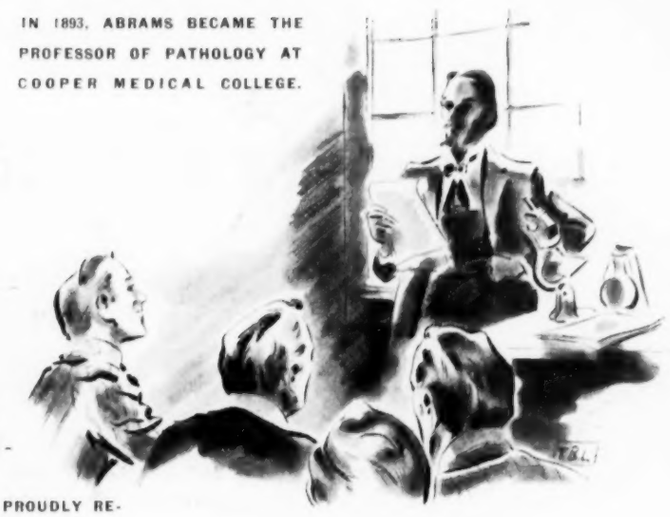
It was a proud day for Albert Abrams when, at the age of 19, he walked out of the University of Heidelberg with a medical diploma. Up to that time he had lived among books, even to the exclusion of friends, for Albert had been known in San Francisco during his school days as a boy without a comrade. His parents, encouraged by the precociousness of their son, pointed out to him the necessity of intellectual supremacy in this world. He had inherited, one might say, a characteristic feeling that he belonged to an oppressed race, and this fired his ambition to dominate. His early letters indicate a ruthless ambition. He inwardly felt that he was destined to become a sage, even a prophet, and to possess both wealth and power.

In order to accomplish his aims he immediately set about the task of publishing articles and books. He wrote about medical education in Germany, about the application of electricity to medicine, and—with characteristic youthful all-inclusiveness—about the causes of all contagious diseases. His first textbook, "A Manual of Clinical Diagnosis," was commendable. During this period his private practice had steadily grown, and there was every indication thus far that he was destined to become a respected physician of superior ability.

In 1893, Abrams became the professor of pathology at the Cooper Medical College. The students were divided in their opinions of him. Sometimes Professor Abrams would show them things through a microscope which they themselves could never see, and some of the students attributed this to his greatness. A few, who would never believe what they could not prove to themselves, did not trust his integrity and frankly expressed their opinions.

Dr. Abrams continued in his chair of pathology for five years and then resigned. He had published numerous case reports during this time and had written several books. His private practice had increased remarkably. His prestige and reputation were established. Physicians associated him with Heidelberg, with honorary offices in medical societies and with a professorship in pathology, that fundamental judicious science to which doctors turn for final judgment. The townspeople associated him with a

AT NINETEEN, ALBERT PROUDLY RECEIVED HIS MEDICAL DIPLOMA FROM THE UNIVERSITY OF HEIDELBERG.



IN 1893, ABRAMS BECAME THE PROFESSOR OF PATHOLOGY AT COOPER MEDICAL COLLEGE.

short, neatly clipped Vandyke beard, a pair of pince-nez glasses attached to a black ribbon and perched on a prominent nose, a black flowing tie and a derby hat, a fast team of horses and a fine carriage dashing madly about the streets as though he were always on an important case. He was an adept conversationalist, and his witticisms were known throughout the city. He published a little book called "The Transactions of the Antiseptic Club," in which he played on the foibles of the everyday physician and dealt with the medical profession in caricature. The fashionable set invited him to group gatherings to talk to them on occult and mystic subjects, on which Abrams proved to be a masterful authority. For them, he published his "Leaves from a Physician's Diary," a collection of highly imaginative vignettes idealizing medical ethics; and for the physicians he published a textbook on "Diseases of the Heart," containing his original work on the value of the x-rays in cardiac diagnosis.

But this was not enough. He was known throughout San Francisco, but that city was a small world. He was comfortably situated, but there were many who possessed more wealth. He had amused the sophisticated and had added a few textbooks and about fifty articles to the increasingly ponderous field of medical literature; but he had not yet aroused the medical world or startled them from their lethargy by a volley of revolutionary discoveries. This, he set about to do.

Whenever Abrams was called in on a consultation, he would tap on the patient's chest or back and discover small areas of dulness which other physicians had not found and could not find. "Observe," he would say. "I shall percuss this vertebra," and with that he would hammer on the patient's spine. Quickly he would turn to the patient's chest and outline the borders of the heart by percussion. "Just as I thought," he would state triumphantly. "I have elicited a reflex. The heart and the aorta have decreased in size!"

This phenomenon he called the "heart reflex of Abrams," and later he elaborated the "lung reflex of Abrams." He was pleased—and undoubtedly surprised—to find that other physicians of lesser diagnostic acumen corroborated these observations, although such "reflexes" could never be proved without the use of the x-ray, which was then in its infancy. A few physicians openly challenged Abrams; and in order to appease them and clear himself of all suspicions of fraud, he published another textbook, in which he included a chapter on "The Charlatan Versus the Physician."

This was the critical period in his career. He had become a half-quack. If he had possessed the strength of character to go with his natural genius, he could have regained the full confidence of his profession. Abrams, however, was a vain soul who could not retract his false statements without irreparable damage to his ego. He still had his love of fame and notoriety, his indomitable desire for wealth and social prestige; and, as he was susceptible to flattery, the stimulus of praise from gullible and worshipful physicians spurred him into further quackery. In 1910 he collected all his previous writings on doubtful subjects, added more doubtful "reflexes," included odd bits of chiropractic, threw in some elaborate photographs and fantastic diagrams, coined the word "spondylotherapy" to describe his system and published his book under that title. This was a bold stroke, for to the teachers of medicine the volume was preposterous and to the layman, unintelligible. The risk was tremendous, for he might be branded as a fake by the people on the streets and relegated to obscurity. But Abrams was a student of the human mind and understood its wide limits of credulity.

The book was received with wild acclaim throughout the country by every crank and

THERE TICKED AWAY A LITTLE PENDULUM ATTACHED TO AN OSCILLOCLAST, IN TURN ATTACHED TO SOME POOR INVALID WHO PATIENTLY FACED THE WEST, MOMENTARILY EXPECTING MIRACLES TO COME FROM THOSE WIRES.

quack, and sadly enough, by many well meaning practitioners who could not comprehend the garbled theories but who could master the art of percussing the spine. Letters poured in by the hundreds asking for further enlightenment and guidance, and Abrams answered every one with a delightful smoothness and dexterity. He feverishly wrote articles and sent them to any journal that would accept them. Courses were organized in spondylotherapy, with an honorarium of $200, and disciples flocked to his new mansion on Sacramento street in San Francisco. The Philopolis Press was created to publish his own books and monographs. He founded the American Association for the Study of Spondylotherapy and became the honorary president. Dr. Abrams was now too steeped in quackery ever to turn back. There was only one thing to do and that was to play his role to the very end.

It was not long before he realized that his disciples were beginning to catch up with him. In fact, they were even beginning to comprehend his theory of spondylotherapy and to enlarge on it. He felt the need of new devices, new theories, new revelations to hold their interest. Because of its modernity and because it was shrouded in mystery, he seized on the subject of radio and associated electrical phenomena as a starting point.

In tracing the origin of his famous electronic hokum, we find a possible source for his ideas in an earlier visit to Germany. In one of his writings he described his visit while there to a man named Einthoven, who had invented a string galvanometer. "With this instrument," said Abrams, "heart disease can be diagnosed by a wire on a patient a block away from the instrument." This seemed quite miraculous to Abrams and to most every one else at the time. He could not fathom the principles of this invention, which we now know so well as the electrocardiograph. If such a machine could do this, thought Dr. Abrams, why could he not conceive of a greater machine to diagnose *all* diseases and not only to diagnose but *treat* them?

It was shortly after this that Abrams went down to a little old man on Filmore street in San Francisco, the proprietor of a small electrical shop, and asked him to build a machine for him. He was very vague in his specifications.

"What kind of a machine do you want?" asked this man, who recounts the story.

"I want a motor on the top of it, a pendulum, a light and a few dials," said the professor.

"But what do you want the machine to do?"

"Never mind about that," said Abrams. "Just be sure that everything works—and if you have any loose wires in the machine, bury the ends in paraffin so that they won't show."

In such a simple manner as this was born the omnipotent Oscilloclast, the machine destined to treat cancer, tuberculosis, venereal disease and every other human ailment. Probably in a like manner, Albert Abrams built his Reflexophone, for diagnosis over the telephone; his Biodynamometer, for "measuring the potentiality of human disease in ohms," and a host of other fantastic machines—some of which are still used by medical cultists. The most marvelous of all these devices was an instrument which could diagnose disease from a drop of dried blood on a blotter, not only the nature and cause of the illness but its location and its strength in "ohms of resistance"!

These remarkable claims took the world by storm, and the Electronic Reactions of Abrams, shortened to the E.R.A., became known throughout most of the civilized nations. In the center of London the letters E.R.A. burned in electric lights, advertising the practitioners who were using the master's methods. Drops of blood on blotters, accompanied by checks for $10, poured in by the hundreds for diagnosis. Many of these, Abrams diagnosed with *(Continued on page 92)*

Harold M. Lambert

CANCER of the BREAST

Definitely curable in its early stages, cancer presents an encouraging picture that need not frighten you, says

J. STEWART RODMAN

CANCER is one of the chief causes of death. During the World War, cancer brought death to twice as many civilians in this country as bullets and disease did to our soldiers. Figures compiled by the Metropolitan Life Insurance Company show that in the quarter century from 1911 to 1935, 262,046 people among the industrial policy holders of this company died of cancer; and of this number, 26,324 deaths were due to cancer of the breast. These figures, of course, apply only to a selected group of the population of the country. The number of deaths from cancer for the entire population is vastly larger. For the country as a whole about 12,000 deaths occur annually from cancer of the breast. Yet cancer, if properly treated in its early stages, *is* curable.

Cancer was known to the Egyptians as long ago as 1500 B. C. In the writings of that time are found suggestions that this disease be burnt out; and in a more refined form, as in the use of the electric cautery or radium, that is what is done today for certain types of cancer.

As yet, in spite of the work that is going on in research all over the world and in spite of the fact that many of its contributing causes have been established, the definite cause of the disease has not been found. We know a great deal more about it now, however, than we did twenty-five years ago; and each year brings some addition to this knowledge. It is reasonable to hope then that within the lifetime of most of us further real progress will be made and the actual cause of cancer may be found.

A discussion of cancer of the breast for all practical purposes may be limited to this condition as it occurs in the female, although in a small number, not over 1 per cent, it is seen in the male.

Race, it seems, has nothing much to do with its frequency. It occurs in the Negro race about as frequently as among the white population.

Age has much to do with cancer, as it is rarely seen in the young. When it does occur in them, it is a more serious matter and usually progresses faster than in the older age groups. The greatest number of cases of cancer of the breast are observed after the age of 45 and especially after 50 and 60.

Irritation definitely plays some part in the development of most forms of cancer.

The body is composed of cells whose function is to build organs, such as the liver and the stomach, which are essential to life. These cells normally develop and multiply but stop when their function is fulfilled. If we can put out of our minds the idea that cancer is a fatal disease and think of it as nothing more than a group of cells that have gone wrong and have refused to obey the ordinary laws of growth, it will be apparent that if it can be discovered early, it can be removed. Perhaps the idea that any cancer is incurable has grown out of the fact that for many centuries it was thought to be a blood disease carried throughout the body

and that therefore there was no use in trying to remove it in any part of the body since it would break out somewhere else. This conception has some basis in fact late in the disease, for as the disease progresses, it may get into the blood stream and spread throughout the body.

An English surgeon in 1867 showed that at first it was invariably limited to the place at which it began, and the many cures that have resulted from the removal of its place of origin have proved this fact over and over again. There is nothing, then, to dread about cancer of the breast if one finds it in time, because it can be cured!

It is not, in this early stage, the horrible disease that most people have in mind—a bleeding, foul sore that is painful. That is only cancer in its very late form. How then can one know when one has cancer of the breast in an early stage? The first thing that should call any woman's attention to the fact that all is not well with the breast is the discovery of a lump there. How can one tell whether a lump is a cancer or whether it is some less serious manifestation? The great difference is that these lumps differ

BY TAKING A POWERFUL CONCENTRATED LIGHT AND PLACING IT UNDER THE BREAST, THE DOCTOR CAN OFTEN TELL WHETHER HE IS DEALING WITH A HARD LUMP OR WITH ONE THAT IS FILLED WITH FLUID.

because the "good" kind, that is, the nonmalignant kind, are painful and the other kind are not. It is unfortunate that cancer of the breast, or for that matter cancer anywhere, is not painful in its beginning; but on the other hand it serves at least to tell the doctor who has made a special study of this condition that it is a lump that should be regarded with suspicion for that very reason. The usual thing would be in bathing or dressing to find that there is a little irregularity in the breast that has not been there before. If this has been associated with pain, if it has come on just before the menstrual period, the chances are that it is simply irritation of the breast tissue and does not mean that it is necessarily serious. If, however, it occurs after 45 and is not associated with any pain and is not tender when it is pressed, it should at once be seen by a physician who is trained in the diagnosis of this condition. Again, lumps that are nonmalignant are apt to occur in both breasts, certainly in from 20 to 25 per cent of the cases, while cancer is almost always limited to one breast.

The lump of cancer is hard and as a rule is attached to the skin. When it grows, and if it is centrally located back of the nipple, it will cause retraction of this part of the breast; but the patient must not wait for that to happen, for that means that it has been there too long.

Fortunately today we have aids to turn to in making a diagnosis of cancer of the breast that we have not had until the last few years. The x-rays, for example, are only now being developed for use in diagnosis of soft structures. Formerly the x-rays were used almost entirely for diagnosis in the case of injury or disease in the bones; but now they may be used in diagnosing certain types of cancer in other regions of the body, most particularly the stomach and recently the breast, so that if the physician is at all in doubt he will ask that an x-ray picture be taken to help him in the diagnosis. This will sometimes show cancer in its early stages and therefore is of great help in ascertaining the nature of the lump of which the patient complains.

Today much is known about the use of light transmitted through the breast. By taking a powerful concentrated light and placing it under the breast, the doctor can often tell whether he is dealing with a hard lump or with one that is filled with fluid. As a general rule the ones that are filled with fluid are simple in their nature and do not cause any worry on the part of the physician; he knows that when they are removed they do not recur.

The diagnosis, then, of cancer of the breast in its last stages is easy; but fortunately with the widespread general knowledge that is now available it is not necessary to wait until the late stage to find out about this growth.

If a competent physician decides that a lump in the breast should be looked at with suspicion, the accepted treatment today is to remove the lump and submit it to a pathologist for examination under the microscope. If the microscope shows that it is cancerous, then the condition can still be cured if it has not spread beyond the place where it originated. In fact, 75 per cent of cancers of the breast can be cured if they can be attacked at the earliest possible stage when they are limited to the breast itself. The first place to which cancer spreads from the breast is the glands under the arm. It is still curable when this happens, although a much greater percentage of its victims will succumb to the disease than though it had not spread at all. If it gets beyond the arm, it is difficult to cure; but that doesn't happen for a considerable time in most instances.

Physicians are frequently asked whether a discharge from the nipple indicates cancer of the breast. The answer to this is definitely "No." No discharge from the nipple is characteristic of cancer of the breast; more often there is no discharge from the nipple at all in this condition. It is true that in a condition of the breast that is associated sometimes with the later development of cancer, there is a discharge of pure blood from the nipple; but this means that there is a cyst or hollow tumor filled with blood in one of the ducts leading to the nipple, which from time to time discharges. This does not occur in younger women, rather at the age when cancer occurs, after 45, and should always be investigated fully. A simple operation performed at that time will suffice to cure the patient.

Although there is no need for great alarm when a lump is discovered in the breast, nevertheless since lumps do not belong there, they should be regarded as abnormal, something that should be reported to a physician who understands these conditions.

If the physician feels that the lump in question is suggestive of cancer, what will the next step be? The patient then should be referred to a surgeon who understands the condition and will take the proper steps for its cure. Today cancer of the breast can best be cured by a combination of x-ray treatment and surgery. The majority of surgeons feel that the patient has the best chance when given x-ray treatments before and after operation.

We should forget the dread of cancer and remember that it is curable. It is only painful and disgusting in its late stages. In the early stages it is local and is confined entirely to the place where it started and, therefore, can be removed and cured.

There is every reason to hope then that by the well endowed and well directed research that is going on in all parts of the world, man will ultimately conquer cancer.

REDUCING DIETS (Continued from page 49)

Menu No. 6

	Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Breakfast					
Sliced orange	1	1	..	11	48
Omelet	2 eggs	12	12	..	156
Use butter	1 pat	..	9	..	81
Coffee	as desired				
Lunch					
Crab meat	½ cupful	14	2	2	82
Cocktail sauce	¼ cupful	1	..	4	20
Head lettuce	¼ large head	1	..	2	12
Cold asparagus	6 stalks	1	..	2	12
Hard cooked egg	1	6	6	..	78
Milk	½ pint	8	10	12	170
Hot tea or coffee	as desired				
Dinner					
Tomato stuffed with caviar		3	1	5	41
Celery heart	1	1	..	2	12
Baked fillet of sole	average serving	11	6	..	98
Stuffed with shrimp		8	..	..	32
String beans	20 or ⅔ cupful	2	4	6	68
Lettuce	5 leaves	1	..	1	8
Radishes	3	..	..	1	4
Cucumbers	8 slices ⅛″ thick	..	..	1	4
Lemon or vinegar					
Honeydew melon balls	12	1	..	14	60
With mint					
Coffee	as desired				
Before Bed					
Skimmed milk	6 ounces	6	1	9	69

Menu No. 7

	Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Breakfast					
Grapefruit	½	..	..	9	36
Baked fresh beef hash	½ cupful	13	5	..	97
With poached egg	1	6	6	..	78
Coffee	as desired				
Lunch					
Cottage cheese, dry	¼ cupful mixed with skimmed milk	14	..	..	56
Sliced dried beef	3 slices	9	2	..	54
Cabbage and grated carrot salad mixed with Pickle juice					
Shredded cabbage	1 cupful	1	..	3	16
Grated carrot	½ cupful	1	..	4	20
Lettuce	5 leaves	1	..	1	8
Milk	½ pint	8	10	12	170
Hot tea or coffee	as desired				
Dinner					
Fresh fruit cocktail					
Orange sections	6	..	..	5	20
Grapefruit sections	3	..	..	5	20
Mint					
Roast lamb	1 slice	12	8	..	120
Broccoli	average serving	3	4	4	64
Summer squash	average serving	1	4	3	52
Lettuce	5 leaves	1	..	1	8
Radish roses	3	..	..	1	4
Cucumber cubes	½ cupful	..	..	1	4
Lemon quarters					
Baked apple, no sugar	1 small	..	..	15	60
Coffee	as desired				
Before Bed					
Whole milk	6 ounces	6	7	9	123

In the seven days' menus just presented there will be a discrepancy in certain daily menus from the prescription of 80 Gm. protein, 50 Gm. fat and 70 Gm. carbohydrate; but average amounts for the week are 80 Gm. protein, 50 Gm. fat and 71 Gm. carbohydrate.

1,200 Calory Diet

The 1,200 calory diet should have about 90 Gm. protein, 55 Gm. fat and 85 Gm. carbohydrate daily. Here are seven days' menus for the 1,200 calory diet. These menus provide an intake which compares with accepted standards as follows:

	Accepted Standard of Weekly Requirement	Provided by These Menus
Vitamin A	42,000 Sherman units	123,035 Sherman units
Vitamin B_1	4,200 Sherman units	4,966 Sherman units
Vitamin C	1,050 Sherman units	1,632 Sherman units
Vitamin G	4,200 Sherman units	4,978 Sherman units
Calcium	4.76 Gm.	7.1518 Gm.
Phosphorus	9.24 Gm.	11.9352 Gm.
Iron	0.105 Gm.	0.148644 Gm.

Menu for Sunday or Holiday

	Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Breakfast					
Honeydew melon	⅛ average melon	1	..	15	64
Egg, poached on	2	12	12	..	156
Broiled thin ham	1 slice	7	8	..	100
Skimmed milk	6 ounces	6	1	9	69
Coffee	as desired				
Dinner					
Tomato frappé	3 ounces	1	..	2	12
Broiled chicken	½	21	5	..	111
Mushrooms	½ cupful	..	4	..	36
French artichoke	average	3	4	9	84
String beans, no fat	20 or ⅔ cupful	2	..	6	32
Fresh fruit salad					
Lettuce	5 leaves	1	..	1	8
Orange sections	6	..	..	5	20
Baked apple	1 small	..	..	15	60
American cheese	1 one-inch cube	3	5	1	61
Coffee	as desired				
Supper					
Bouillon	as desired				
Cold sliced tongue	2 slices	12	7	..	111
Cold sliced beef	1 slice	8	4	..	68
Cucumber sauce	average serving	..	..	1	4
Lettuce	5 leaves	1	..	1	8
Asparagus tips	6	1	..	2	12
Lemon quarters and pimento strips					
Hard cooked egg	1	6	6	..	78
Fresh peach, sliced	1 small	..	..	10	40
Tea or coffee	as desired				
Before Bed					
Skimmed milk	6 ounces	6	1	9	69

Menu No. 2

	Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Breakfast					
Grapefruit	½	..	..	9	36
Scrambled eggs	2	12	12	..	156
(Scrambled over water)					
Chicken livers	2	22	4	..	124
(Boiled and mixed with the eggs)					
Coffee	as desired				
Lunch					
Vegetable soup, no fat	6 ounces	1	1	9	49
Cold roast ham	2 slices	14	16	..	200
(Do not eat fat part)					
Head lettuce	¼ large head	1	..	2	12
Lemon slice					
Milk	½ pint	8	10	12	170
Canned pear	1 half	..	..	12	48
Tea or coffee	as desired				
Dinner					
Jellied consommé	as desired				
Hot rib roast of beef	average slice	16	8	..	136
(Do not eat fat part)					
Carrot strips	15	1	4	4	56
Cabbage	⅙ average head	2	4	5	64
Lettuce	5 leaves	1	..	1	8
Tomato quarters	1 tomato	1	..	4	20
Garnish with parsley and alternate slices of radish		..	..	1	4
and cucumber		..	..	1	4
European grapes	14	..	..	15	60
Coffee	as desired				
Before Bed					
Skimmed milk	6 ounces	6	1	9	69

Menu No. 3

	Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Breakfast					
Grapefruit	1 half	..	..	9	36
Shadroe, broiled	½ pair	18	3	2	107
Coffee	as desired				
Lunch					
Ground beef pattie	1	9	3	2	71
Head lettuce	¼ large head	1	..	2	12
Lemon quarter					
Milk	½ pint	8	10	12	170
Fresh peach, sliced	1 small	..	..	10	40
Tea or coffee	as desired				
Dinner					
Bouillon	as desired				
Celery heart	1 heart	1	..	2	12
Broiled steak	1 tenderloin	19	29	..	337
Baked summer squash	average serving	1	4	3	52
Spinach, no fat with lemon	⅔ cupful	3	..	3	24
Garnish with hard cooked egg		6	6	..	78
Lettuce	5 leaves	1	..	1	8
Fresh pineapple	¾ cupful	..	..	13	52
Mint					
Garnish with paprika flecked cottage cheese balls					
Use ¼ cupful cheese, dry		14	..	..	56
Baked apple	1 small	..	..	15	60
Coffee	as desired				
Before Bed					
Skimmed milk	6 ounces	6	1	9	69

Menu No. 4

	Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Breakfast					
Orange cut in half	1	1	..	11	48
Broiled calves' liver	2 slices	20	6	..	134
Crisp bacon	2 slices	5	10	..	110
Coffee	as desired				
Lunch					
Vegetable soup, no fat	6 ounces	1	1	9	49
Cold roast beef (Do not eat fat part)	2 slices	16	8	..	136
Head lettuce	¼ large head	1	..	2	12
Milk	½ pint	8	10	12	170
Canned pear	1 half	..	..	12	48
Tea or coffee	as desired				
Dinner					
*Chilled ruby consommé	6 ounces	2	2	5	44
Veal chop	1 average	24	9	..	177
Asparagus, no fat	6 stalks	1	..	2	12
Carrot cubes	⅔ cupful	1	4	4	56
Lettuce	5 leaves	1	..	1	8
Grapefruit sections	6	..	..	9	36
Garnish with white grapes		..	..	7	28
American cheese	1 one-inch cube	3	5	1	61
Coffee					
Before Bed					
Skimmed milk	6 ounces	6	1	9	69

Menu No. 5

	Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Breakfast					
Fresh peach, sliced	1 small	..	..	10	40
Poached eggs	2	12	12	..	156
Crisp bacon	3 strips	7	15	..	163
Coffee	as desired				
Lunch					
Cottage cheese, dry	½ cupful	28	..	..	112
Head lettuce	¼ large head	1	..	2	12
Grated raw carrot	average serving	1	..	4	20
Milk	½ pint	8	10	12	170
Baked apple, no sugar	1 small	..	..	15	60
Hot tea or coffee	as desired				
Dinner					
Jellied consommé	as desired				
Celery heart	1 heart	1	..	2	12
Broiled sweetbreads	½ pair	19	13	..	193
Swiss chard	⅔ cupful	1	4	3	52
Sliced tomato	1	1	..	4	20
Watercress	1 bunch	1	..	1	8
Orange slices	1 orange	1	..	11	48
European type grapes	14	..	..	15	60
Coffee	as desired				
Before Bed					
Skimmed milk	6 ounces	6	1	9	69

Menu No. 6

	Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Breakfast					
Sliced orange	1	1	..	11	48
Soft cooked eggs	2	12	12	..	156
Bacon	2 strips	5	10	..	110
Coffee	as desired				
Lunch					
Vegetable soup, no fat	6 ounces	1	1	9	49
Crab meat	½ cupful	14	2	2	82
Cocktail sauce	¼ cupful	1	..	4	20
Head lettuce	¼ large head	1	..	2	12
Cold asparagus	6 stalks	1	..	2	12
Hard cooked egg	1	6	6	..	78
Milk	½ pint	8	10	12	170
Hot tea or coffee	as desired				
Dinner					
Tomato stuffed with caviar		3	1	5	41
Celery heart	1 heart	1	..	2	12
Baked fillet of sole	average serving	11	6	..	98
Stuffed with shrimp		8	..	..	32
String beans	20 or ⅔ cupful	2	4	6	68
Lettuce	5 leaves	1	..	1	8
Radishes	3	..	..	1	4
Cucumbers	8 slices ⅛ inch thick	..	..	1	4
Lemon or vinegar					
Honeydew melon balls	12	1	..	14	60
With mint					
Longhorn cheese	1 one-inch cube	3	5	1	61
Coffee	as desired				
Before Bed					
Skimmed milk	6 ounces	6	1	9	69

Menu No. 7

	Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Breakfast					
Grapefruit	½	..	..	9	36
Baked fresh beef hash	½ cupful	13	5	..	97
With poached egg	1	6	6	..	78
Coffee	as desired				
Lunch					
Vegetable soup, no fat	6 ounces	1	1	9	49
Cottage cheese, dry	¼ cupful	14	..	..	56
Mixed with skimmed milk					
Sliced dried beef	3 slices	9	2	..	54
Cabbage and grated carrot salad					
Mixed with pickle juice					
Shredded cabbage	1 cupful	1	..	3	16
Grated carrot	½ cupful	1	..	4	20
Lettuce	5 leaves	1	..	1	8
Milk	½ pint	8	10	12	170
Tea or coffee	as desired				
Dinner					
Fresh fruit cocktail					
Orange sections	6	..	..	5	20
Grapefruit sections	3	..	..	5	20
Mint					
Roast lamb	2 slices	24	16	..	240
Broccoli	average serving	3	4	4	64
Summer squash	average serving	1	4	3	52
Lettuce	5 leaves	1	..	1	8
Radish roses	3	..	..	1	4
Cucumber cubes	½ cupful	..	..	1	4
Lemon quarters					
Baked apple, no sugar	1 small	..	..	15	60
American cheese	1 one-inch cube	3	5	1	61
Coffee	as desired				
Before Bed					
Skimmed milk	6 ounces	6	1	9	69

In the seven days' menus just presented there will be a discrepancy in certain daily menus from the prescription of 90 Gm. protein, 55 Gm. fat and 85 Gm. carbohydrate; but the average for the week is 88 Gm. protein, 56 Gm. fat and 84 Gm. carbohydrate.

1,500 Calory Diet

The 1,500 calory diet should have about 100 Gm. protein, 75 Gm. fat and 120 Gm. carbohydrate. Here is a table listing the foods suggested in addition to the first list and giving the grams of protein, fat and carbohydrate in an average serving of each item.

	Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Soups					
Onion soup au gratin	average serving	5	12	15	182
Cereals					
Rolled oats	½ cupful cooked	3	1	13	73
Cornflakes	⅔ cupful	1	1	14	69
Puffed rice	⅔ cupful	1	..	8	36
Puffed wheat	⅔ cupful	1	..	7	32
Rice flakes	½ cupful	1	..	13	56
Maltex	½ cupful cooked	3	..	15	72
Wheatena	½ cupful cooked	2	1	15	77
Cornmeal	½ cupful cooked	2	..	16	72
Bread					
Entire wheat bread	1 slice	2	..	10	48
White bread (Not over 2 slices daily)	1 slice	2	..	11	52
Vegetables, cooked					
(One teaspoonful fat is allowed for all vegetables to be served hot unless it is definitely specified "no fat")					
Beets	3 medium	2	4	6	68
Peas	⅔ cupful	7	4	16	128
Squash, winter	average serving	2	4	7	72
Salad dressings					
Cooked dressing	1 tablespoonful	..	5	3	57
Desserts					
Fruit gelatin	3 ounces	2	..	20	88
Lemon ice	average serving (⅙ pt.)	..	..	41	164
Orange ice	average serving (⅙ pt.)	..	..	34	136
Pineapple ice	average serving (⅙ pt.)	..	..	39	156
Vanilla ice cream	average serving	4	12	20	204
Baked custard	3 ounces	7	7	14	147

Here are seven days' menus for the 1,500 calory diet. These menus provide an intake which compares with accepted standards as follows:

	Accepted Standard of Weekly Requirement	Provided by These Menus
		Approximately
Vitamin A	42,000 Sherman units	158,846 Sherman units
Vitamin B1	4,200 Sherman units	5,583 Sherman units
Vitamin C	1,050 Sherman units	1,630 Sherman units
Vitamin G	4,200 Sherman units	5,340 Sherman units
Calcium	4.76 Gm.	8.5635 Gm.
Phosphorus	9.24 Gm.	13.82754 Gm.
Iron	0.105 Gm.	0.158692 Gm.

Menu for Sunday or Holiday

	Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Breakfast					
Honeydew melon	⅛ average melon	1	..	15	64
Puffed wheat	⅔ cupful	1	..	7	32
Skimmed milk	¾ cupful	6	1	9	69
Eggs, poached on	2	12	12	..	156
Broiled thin ham	1 slice	7	8	..	100
Entire wheat bread, toasted	1 slice	2	..	10	48
Butter	½ pat	..	4	..	36
Coffee	as desired				
Dinner					
*Tomato frappé	3 ounces	1	..	2	12
Broiled chicken	½	21	3	..	111
Mushrooms	½ cupful	..	4	..	36
French artichoke	average	3	4	9	84
String beans, no fat	20 or ⅔ cupful	2	..	6	32
Fresh fruit salad					
Lettuce	5 leaves	1	..	1	8
Orange sections	6	..	..	5	20
Ice cream	average serving	4	12	20	204
American cheese	1 one-inch cube	3	5	1	61
Coffee	as desired				
Supper					
Bouillon	as desired				
Cold sliced tongue	2 slices	12	7	..	111
Cold sliced beef	1 slice	8	4	..	68
*Cucumber sauce	average serving	..	..	1	4
Lettuce	5 leaves	1	..	1	8
Asparagus tips	6	1	..	2	12
Lemon quarters and pimento strips					
Hard cooked egg	1	6	6	..	78
Entire wheat bread	1 slice	2	..	10	48
Butter	½ pat	..	4	..	36
Fresh peach, sliced	1 small	..	..	10	40
Tea or coffee	as desired				
Before Bed					
Skimmed milk	6 ounces	6	1	9	69

Menu No. 2

	Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Breakfast					
Grapefruit	½	..	..	9	36
Rolled oats	½ cupful	3	1	13	73
Milk	¼ cupful	2	2	3	38
Scrambled eggs (Scrambled over water)	2	12	12	..	156
Chicken livers (Boiled and mixed with the eggs)	2	22	4	..	124
Entire wheat bread, toasted	1 slice	2	..	10	48
Butter	½ pat	..	4	..	36
Coffee	as desired				
Lunch					
Vegetable soup, no fat	6 ounces	1	1	9	49
Cold roast ham (Do not eat fat part)	2 slices	14	16	..	200
Head lettuce, Lemon slice	¼ large head	1	..	2	12
Milk	½ pint	8	10	12	170
Entire wheat bread	1 slice	2	..	10	48
Butter	½ pat	..	4	..	36
Baked custard	average serving	7	7	14	147
Tea or coffee	as desired				
Dinner					
Jellied consommé	as desired				
Hot rib roast of beef (Do not eat fat part)	average slice	16	8	..	136
Carrot strips	15	1	4	4	56
Cabbage	⅛ average head	2	4	5	64
Lettuce	5 leaves	1	..	1	8
Tomato quarters	1 tomato	1	..	4	20
Garnish with parsley and alternate slices of radish		..	..	1	4
and cucumber		..	..	1	4
European grapes	14	..	..	15	60
Coffee	as desired				
Before Bed					
Skimmed milk	6 ounces	6	1	9	69

Menu No. 3

	Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Breakfast					
Grapefruit	½	..	..	9	36
Rolled oats	½ cupful	3	1	13	73
Milk	¼ cupful	2	2	3	38
Shadroe, broiled	½ pair	18	3	2	107
Entire wheat bread, toasted	1 slice	2	..	10	48
Butter	½ pat	..	4	..	36
Coffee	as desired				
Lunch					
Ground beef pattie	1	9	3	2	71
Head lettuce, Lemon quarter	¼ large head	1	..	2	12
Milk	½ pint	8	10	12	170
Entire wheat bread	1 slice	2	..	10	48
Butter	½ pat	..	4	..	36
Fresh peach, sliced	1 small	..	..	10	40
Tea or coffee	as desired				
Dinner					
Bouillon	as desired				
Celery heart	1 heart	1	..	2	12
Broiled steak	1 tenderloin	19	29	..	337
Baked summer squash, no fat	average serving	1	..	3	16
Spinach, no fat, with lemon	⅔ cupful	3	..	3	24
Garnished with hard cooked egg	1	6	6	..	78
Lettuce	5 leaves	1	..	1	8
Fresh pineapple, Mint	¾ cupful	..	..	13	52
Garnish with paprika flecked cottage cheese balls					
Use ¼ cupful cheese		14	..	..	56
Vanilla ice cream	average serving	4	12	20	204
Coffee	as desired				
Before Bed					
Skimmed milk	6 ounces	6	1	9	69

Menu No. 4

	Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Breakfast					
Orange cut in half	1 small	1	..	11	48
Rice flakes	½ cupful	1	..	13	56
Milk	¼ cupful	2	2	3	38
Broiled calves' liver	2 slices	20	6	..	134
Crisp bacon	2 slices	5	10	..	110
Entire wheat bread, toasted	1 slice	2	..	10	48
Butter	½ pat	..	4	..	36
Coffee	as desired				
Lunch					
Vegetable soup, no fat	6 ounces	1	1	9	49
Cold roast beef (Do not eat fat part)	2 slices	16	8	..	136
Head lettuce	¼ large head	1	..	2	12
Milk	½ pint	8	10	12	170
Entire wheat bread	1 slice	2	..	10	48
Butter	½ pat	..	4	..	36
Baked custard	average serving	7	7	14	147
Tea or coffee	as desired				
Dinner					
*Chilled ruby consommé	6 ounces	2	2	5	44
Veal chop	1 average	24	9	..	177
Asparagus	6 stalks	1	4	2	48
Carrot cubes	⅔ cupful	1	4	4	56
Lettuce	5 leaves	1	..	1	8
Grapefruit sections	6	..	..	9	36
Garnish with white grapes		..	..	7	28
American cheese	1 one-inch cube	3	5	1	61
Coffee	as desired				
Before Bed					
Skimmed milk	6 ounces	6	1	9	69

Menu No. 5

	Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Breakfast					
Fresh peach, sliced	1 small	..	..	10	40
Puffed rice	⅔ cupful	1	..	8	36
Milk	¼ cupful	2	2	3	38
Poached eggs	2	12	12	..	156
Crisp bacon	3 strips	7	15	..	163
Entire wheat bread, toasted	1 slice	2	..	10	48
Butter	½ pat	..	4	..	36
Coffee	as desired				
Lunch					
Cottage cheese, dry	½ cupful	28	..	..	112
Head lettuce	¼ large head	1	..	2	12
Grated raw carrot	average serving	1	..	4	20
Milk	½ pint	8	10	12	170
Entire wheat bread	1 slice	2	..	10	48
Butter	½ pat	..	4	..	36
Baked apple, no sugar	1 small	..	..	15	60
Hot tea or coffee	as desired				

	Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Dinner					
Jellied consommé	as desired				
Celery heart	1 heart	1	..	2	12
Broiled sweetbreads	½ pair	19	13	..	193
Swiss chard	⅔ cupful	1	4	3	52
Sliced tomato	1	1	..	4	20
Watercress	1 bunch	1	..	1	8
Orange slices	1 orange	1	..	11	48
European type grapes	14	..	..	15	60
Longhorn cheese	2 one-inch cubes	6	10	2	122
Coffee	as desired				
Before Bed					
Skimmed milk	6 ounces	6	1	9	69

Menu No. 6

	Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Breakfast					
Sliced orange	1 small	1	..	11	48
Cornflakes	⅔ cupful	1	1	14	69
Milk	¼ cupful	2	2	3	38
Poached eggs on	2	12	12	..	156
Broiled thin ham	1 slice	7	8	..	100
Entire wheat bread, toasted	1 slice	2	..	10	48
Butter	½ pat	..	4	..	36
Coffee	as desired				
Lunch					
Vegetable soup, no fat	6 ounces	1	1	9	49
Crab meat	½ cupful	14	2	2	82
Cocktail sauce	¼ cupful	1	..	4	20
Head lettuce	¼ large head	1	..	2	12
Cold asparagus	6 stalks	1	..	2	12
Hard cooked eggs	1	6	6	..	78
Milk	½ pint	8	10	12	170
Entire wheat bread	1 slice	2	..	10	48
Butter	½ pat	..	4	..	36
Tea or coffee	as desired				
Dinner					
Tomato stuffed with caviar		3	1	5	41
Celery heart	1 heart	1	..	2	12
Baked fillet of sole	average serving	11	6	..	98
Stuffed with shrimp		8	..	..	32
String beans	20 or ⅔ cupful	2	4	6	68
Spinach	⅔ cupful	3	4	3	60
Lettuce	5 leaves	1	..	1	8
Radishes	3	..	..	1	4
Cucumbers	8 slices ⅛ inch thick	..	..	1	4
Lemon or vinegar					
Honeydew melon balls	12	1	..	14	60
With mint					
Longhorn cheese	2 one-inch cubes	6	10	2	122
Coffee	as desired				
Before Bed					
Skimmed milk	6 ounces	6	1	9	69

Menu No. 7

	Amount	Protein, Gm.	Fat, Gm.	Carbohydrate, Gm.	Calories
Breakfast					
Grapefruit	½	..	..	9	36
Maltex	½ cupful	3	..	15	72
Milk	¼ cupful	2	2	3	38
Baked fresh beef hash	½ cupful	13	5	..	97
With poached egg	1	6	6	..	78
Entire wheat bread, toasted	1 slice	2	..	10	48
Butter	½ pat	..	4	..	36
Coffee	as desired				
Lunch					
Vegetable soup	6 ounces	1	11	9	139
Cottage cheese, dry	¼ cupful	14	..	..	56
Mixed with skimmed milk					
Sliced dried beef	3 slices	9	2	..	54
Cabbage and grated carrot salad					
Mixed with pickle juice					
Shredded cabbage	1 cupful	1	..	3	16
Grated carrot	½ cupful	1	..	4	20
Lettuce	5 leaves	1	..	1	8
Entire wheat bread	1 slice	2	..	10	48
Butter	½ pat	..	4	..	36
Milk	½ pint	8	10	12	170
Tea or coffee	as desired				
Dinner					
Fresh fruit cocktail					
Orange sections	6	..	..	5	20
Grapefruit sections	3	..	..	5	20
Mint					
Roast lamb	2 slices	24	16	..	240
Broccoli	average serving	3	4	4	64
Summer squash	average serving	1	4	3	52
Lettuce	5 leaves	1	..	1	8
Radish roses	3	..	..	1	4
Cucumber cubes	½ cupful	..	..	1	4
Lemon quarters					
Baked apple, no sugar	1 small	..	..	15	60
American cheese	1 one-inch cube	3	5	1	61
Coffee	as desired				
Before Bed					
Skimmed milk	6 ounces	6	1	9	69

In the seven days' menus just presented there will be a discrepancy in certain daily menus from the prescription of 100 Gm. protein, 75 Gm. fat and 120 Gm. carbohydrate; but the average for the week is 101 Gm. protein, 75 Gm. fat, and 121 Gm. carbohydrate.

Recipes

Chilled Ruby Consommé

6 small raw beets, washed and pared
1 cupful warm water
4 cupfuls tomato juice
1 medium sized onion chopped fine
½ cupful diced celery
1 medium sized cucumber, peeled
1 tablespoonful olive oil
2 tablespoonfuls lemon juice
Salt, pepper

Run beets through food chopper saving every bit of juice. Put beets in bowl, and add warm water. Allow to stand about 10 minutes. In the meantime cook tomato juice, onion and celery in a covered pot for about 10 minutes. Cool beet mixture and tomato juice mixture. Strain both. Chill thoroughly. Cut cucumber into small dice, removing seeds if they are large, and chill thoroughly. Mix olive oil and lemon juice, and marinate cucumber in this. Now mix beet and tomato juice, and add marinated cucumber. Season to taste with salt and pepper. Serve in well chilled soup plates set in ice. It looks especially well in glass soup plates.

Total recipe: protein, 17 Gm.; fat, 13 Gm.; carbohydrate, 42 Gm.; 353 calories.

One serving: protein, 2 Gm.; fat, 2 Gm.; carbohydrate, 5 Gm.; 44 calories.

Frozen Tomato Juice Cocktail

1 tablespoonful granulated gelatin
2 tablespoonfuls cold water
2 cupfuls tomato juice
1 tablespoonful lemon juice
1 egg white beaten stiff
Salt to taste

Soak gelatin in cold water for 5 minutes. Heat one-half the tomato juice to boiling, and dissolve gelatin in this. Put into freezing compartment of your refrigerator, and freeze to a thick mush, stirring occasionally. Now remove from freezer compartment into a bowl, and fold in egg white. Salt to taste. Pile lightly into serving dishes, and set back in freezing compartment to keep firm until serving time. When serving, set dishes in bed of ice. Sprinkle top with finely chopped olives.

Total recipe: protein, 14 Gm.; no fat; carbohydrate, 5 Gm.; 76 calories.

One serving (¼ recipe): protein, 4 Gm.; no fat; carbohydrate, 1 Gm.; 20 calories.

Chilled Cucumber and Tomato Soup

¾ cupful tomato juice
¼ cupful finely grated cucumber
2 tablespoonfuls lemon juice
Salt, pepper

Mix tomato juice, cucumber and lemon juice, and season to taste with salt and pepper. Chill. Serve in soup bowls set in bed of ice. It looks especially nice in glass soup bowls.

Total recipe: protein, 2 Gm.; no fat; carbohydrate, 5 Gm.; 28 calories.

Tomato Frappé

2 cupfuls tomato juice
Slice of lemon

Pour tomato juice into freezing compartment of your refrigerator. Stir occasionally until it is mushy. Serve in a cocktail dish set in bed of ice. Top frappé with slice of lemon.

Total recipe: protein, 5 Gm.; no fat; carbohydrate, 10 Gm.; 60 calories.

One serving: protein, 1 Gm.; no fat; carbohydrate, 2 Gm.; 12 calories.

Jellied Salmon

1 package lemon flavored gelatin
½ cupful lemon juice
Water
1 can (1 pound) salmon

Make up gelatin according to directions on package using ½ cupful lemon juice in place of the same amount of water. Cool. Remove bones and any particles of skin from salmon, and break up into small pieces. Mix gelatin mixture and salmon, and pour into a loaf cake pan. Chill. Slice and serve on a cold dish.

Total recipe: protein, 111 Gm.; fat, 58 Gm.; carbohydrate, 91 Gm.; 1,330 calories.

One serving: protein, 14 Gm.; fat, 7 Gm.; carbohydrate, 11 Gm.; 166 calories.

Honeydew Circle with Watermelon and Cherries

Inch wide circle of honeydew
12 watermelon balls
6 large sweet cherries, pitted
Lemon juice, mint

Arrange melon circle on fruit plate. Pile watermelon balls and cherries in center of melon circle. Sprinkle with lemon juice, and garnish with mint. Serve very cold.

Total recipe: protein, 4 Gm.; no fat; carbohydrate, 32 Gm.; 144 calories.

Apple and Celery Stuffing for Squab

¼ cupful diced apple
¼ cupful diced celery

Mix apple and celery, and stuff squab before cooking.

This amount: protein, 1 Gm.; no fat; carbohydrate, 17 Gm.; 72 calories.

Vegetable Plate

1 head tender green cabbage
6 young carrots, cut into strips or rings
1 long summer squash, scraped
18 young onions with tops cut off
6 medium sized tomatoes, tops cut off
Finely chopped green pepper

Cut cabbage into sixths and cook about 20 minutes in water in which ham or corned beef or a beef shank has been cooked. Add a bit of salt to cooking water if you think wise. Cook carrots, squash and onions separately in boiling salted water. Cut squash into pieces for serving. Dress carrots, squash and onions lightly with butter, about ½ teaspoonful for each serving. Sprinkle cut tops of tomatoes with finely chopped green pepper, and broil until nicely browned. Arrange vegetables attractively on serving plate.

Total recipe: protein, 36 Gm.; fat, 120 Gm.; carbohydrate, 126 Gm.; 1,728 calories.

One serving: protein, 6 Gm.; fat, 20 Gm.; carbohydrate, 21 Gm.; 288 calories.

Steamed Celery with Tomato Sauce

2 cupfuls diced celery
2 cupfuls cooked tomatoes
½ medium sized onion, cut fine
Salt, pepper

Cook celery and onion slowly in tomatoes until celery is tender. Season with salt and pepper. Serve very hot.

Total recipe: protein, 8 Gm.; no fat; carbohydrate, 27 Gm.; 140 calories.

One serving: protein, 2 Gm.; no fat; carbohydrate, 7 Gm.; 35 calories.

Mustard Butter Sauce

1 tablespoonful prepared mustard
1 tablespoonful granulated sugar
2 tablespoonfuls butter
2 teaspoonfuls lemon juice
½ teaspoonful salt

Mix mustard, sugar and butter together until very smooth. Add salt. Now add lemon juice slowly until all is incorporated into sauce. This is very good with asparagus, cabbage, spinach, chard.

Total recipe: protein, 1 Gm.; fat, 30 Gm.; carbohydrate, 16 Gm.; 338 calories.

One serving (⅙ recipe): no protein; fat, 5 Gm.; carbohydrate, 3 Gm.; 56 calories.

Cucumber Sauce

1 small cucumber, peeled and chopped fine
Salt, pepper
1 tablespoonful vinegar

Season cucumber to taste with salt and pepper. Add vinegar. Serve cold.

Total recipe: no protein; no fat; carbohydrate, 1 Gm.; 4 calories.

Cranberry and Apple Relish

1 cupful cranberries, picked over and washed
1 cupful diced apple

Put cranberries and apple into food chopper, and chop coarsely. Chill.

Total recipe: protein, 2 Gm.; no fat; carbohydrate, 42 Gm.; 176 calories.

One serving (¼ cupful): no protein; no fat; carbohydrate, 5 Gm.; 20 calories.

Cranberry and Orange Relish

1 large orange washed (not peeled)
1 cupful cranberries, picked over and washed.
1 lemon, washed (not peeled)

Cut orange and lemon in half and remove all seeds. Put half sections with cranberries into food chopper, and chop coarsely. Chill.

Total recipe: protein, 1 Gm.; no fat; carbohydrate, 33 Gm.; 136 calories.

One serving (¼ cupful): no protein; no fat; carbohydrate, 4 Gm.; 16 calories.

Cucumber and Pineapple Salad

1 small unpeeled cucumber
1 quarter inch slice fresh pineapple
3 radishes cut into chrysanthemums
Lettuce

Score cucumber lengthwise with a fork. Slice thin, and serve overlapping slices around outside edge of slice of pineapple. Set on generous salad of lettuce. Fill center hole of pineapple with radish chrysanthemums.

Total recipe: no protein; no fat; carbohydrate, 10 Gm.; 40 calories.

Head Lettuce and Vegetable Salad

1 small head of lettuce
8 celery curls
6 radishes cut into chrysanthemums
15 raw carrot strips
Lemon quarter

Take a head of lettuce apart carefully, and rearrange the leaves to make 2 large loosely set up heads. Now set celery curls, radish chrysanthemums and carrot strips all through the open spaces. Put lemon quarter at one side of salad to be used to dress salad.

Total recipe: protein, 4 Gm.; no fat; carbohydrate, 12 Gm.; 64 calories.

One serving: protein, 2 Gm.; no fat; carbohydrate, 6 Gm.; 32 calories.

Egg and Tomato Salad

1 ripe tomato, peeled and diced
1 hard cooked egg, diced
¼ cupful chopped celery
1 tablespoonful finely chopped onion
Salt, pepper
Lettuce
Grated cheese
1 tablespoonful caviar

Mix tomato, egg, celery, caviar, onion and salt and pepper. Arrange on generous serving of lettuce. Sprinkle with grated cheese.

Total recipe: protein, 14 Gm.; fat, 9 Gm.; carbohydrate, 9 Gm.; 173 calories.

Hearty Vegetable Salad

⅓ cupful flowerets of cold cooked cauliflower
⅓ cupful diced cold cooked beets
⅓ cupful diced cold cooked carrot rings
5 leaves lettuce
4 stalks celery
Lemon juice

Arrange vegetables on lettuce, and dress with lemon juice. Serve cold.

Total recipe: protein, 4 Gm.; no fat; carbohydrate, 10 Gm.; 56 calories.

Hearty Luncheon Salad

1 package lemon flavored gelatin
¾ cupful dry cottage cheese beaten up with skimmed milk until smooth
1 cupful finely chopped beets
1 cupful finely shredded raw cabbage
2 tablespoonfuls finely minced onion
Lettuce
Unpeeled cucumber

Prepare gelatin according to directions on package. Chill in refrigerator until it begins to thicken. Divide into two equal parts. Into one half beat the cottage cheese. Do not beat until smooth, just enough to mix gelatin and cheese. Rinse molds in cold water, and fill half full of cheese mixture. Chill in refrigerator until set. Now to the other half of the partially thickened jelly add the beets, cabbage and onion. Pour this into the molds on top of the cheese mixture which has set. Chill thoroughly. When ready to serve, dip molds in hot water for a few seconds, and turn salad out on generous bed of lettuce. Garnish with thin slices of unpeeled cucumber.

Total recipe: protein 52 Gm.; no fat; carbohydrate, 100 Gm.; 608 calories.

One serving ($\frac{1}{12}$ recipe): protein, 4 Gm.; no fat; carbohydrate, 8 Gm.; 50 calories.

Bunch of Grapes Salad

5 average lettuce leaves
2 tablespoonfuls dry cottage cheese beaten up with skimmed milk
1 half canned pear
14 European type grapes, halved and seeded
Sprig of parsley with leaves removed

Arrange lettuce on salad plate. Place pear on lettuce with rounded side of pear up. Cover pear with a thin layer of cheese. Now cover cheese with grapes laid close together, skin side up so that very little of the cheese shows. Add sprig of parsley at end of pear to resemble stem of bunch of grapes.

One serving: protein, 8 Gm.; no fat; carbohydrate, 28 Gm.; 144 calories.

Vegetable Salad

1 head lettuce
1 head endive
4 tomatoes, cut in eighths
1 medium sized onion chopped fine
2 cupfuls chopped celery
12 radishes, sliced thin
1 medium sized cucumber, diced
½ cupful tomato juice
¼ cupful pickle juice
2 tablespoonfuls chopped parsley
½ cupful grated American cheese

Tear lettuce and endive into small pieces. Mix with rest of vegetables. Mix tomato juice, pickle juice, chopped parsley and grated cheese. Dress salad with this, and toss lightly until all is mixed thoroughly. Serve at once.

Total recipe: protein, 39 Gm.; fat, 27 Gm.; carbohydrate, 51 Gm.; 603 calories.

One serving: protein, 5 Gm.; fat, 3 Gm.; carbohydrate, 6 Gm.; 75 calories.

Cheese and Fruit Dessert

¼ cupful dry cottage cheese beaten up with skimmed milk
6 large perfect strawberries, with hulls on
6 large sweet cherries
Mint
1 tablespoonful finely chopped pistachio nuts

Pile cottage cheese lightly in molds in the center of a dessert plate. Arrange strawberries and cherries around outside of cheese. Garnish with mint.

Total recipe: protein, 16 Gm.; no fat; carbohydrate, 16 Gm.; 128 calories.

Cottage Cheese Dessert

¼ cupful dry cottage cheese beaten up with skimmed milk until smooth
Dash of cinnamon
1 teaspoonful sugar
¼ teaspoonful vanilla

Mix thoroughly. This is good with stewed cranberries.

Total recipe: protein, 7 Gm.; no fat; carbohydrate, 5 Gm.; 48 calories.

Want to be a Slim Jim or a Slender Sal? You won't get that way merely from wanting—that's just wishful thinking—but you will if you follow your doctor's orders and a sane reducing diet. Realizing that that word "sane" may mean the difference between health and hazard, the American Medical Association and the National Broadcasting Company will tell you about fads and follies in dieting. Their program, "Fool's Gold," which deals with facts versus fallacies, will be on the air Wednesday, January 4. Remember you can't be happy though haggard. (Want to know more about it? See page 74.)

AS CLEVELAND IS DOING— SO MUST THE NATION!

What's to Be Done?

WELL, PREPARING FOODS CORRECTLY IS ONE VITAL HEALTH FACTOR, SAYS SCIENCE! BY MANY THIS IS CONSIDERED *MOST* IMPORTANT.—We invite you to learn about:—

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"VITAMIUM WAY" Cooking is waterless, greaseless, controlled low temperature cooking! All of this has been found necessary to retain the full, rich natural colors and vitamin content of fruits and vegetables.

In many parts of the country our VITAMIUM COUNSELORS are prepared to tell you all about Vitamium's amazing merits. We are training new Counselors as ones with the right qualifications are found. The majority of our representatives are college-trained and bring a timely and powerful message that fully explains the importance of Vitamium equipment in the home.

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Cleveland Opens Campaign To Teach Need of Vitamins

Cleveland, Oct. 14.—(UP)—The Cleveland Health Council, theorizing that the city's diet largely is inadequate, is striving to make the citizens here the most vitamin-conscious of any in the United States.

Radio, nurses, physicians and public health organizations—virtually every medium possible—are being used to tell rich and poor, alike, of the importance of vitamins in their breakfast, lunch and dinner.

to improper diet and how the right sort of food is as vital as sunshine, fresh air ar exercise.

Mrs. Al troit diet the edu by the study simr suc ar

Correct Eating Helps Fight Off Disease

KANSAS CITY, Mo., Oct. 28.—A Rockefeller Foundation scientist today declared correct eating is as important as heredity in the ability of a person to resist disease.

Many persons have a natural resistance to infection acqui from their parents, Dr. C Church, director of tion's nutrition while oth

NATION'S HEALTH CALLED CENTURY BEHIND SCIENCE

Kansas City, Mo., Oct. 25.—(AP)—The health condition of the average American citizen is 100 years behind what it should be, Dr. Abel Wolman of Baltimore, Md., new president of the American Public Health association, said today.

Despite the fact that the death rate for the first half of this year the Un s w any

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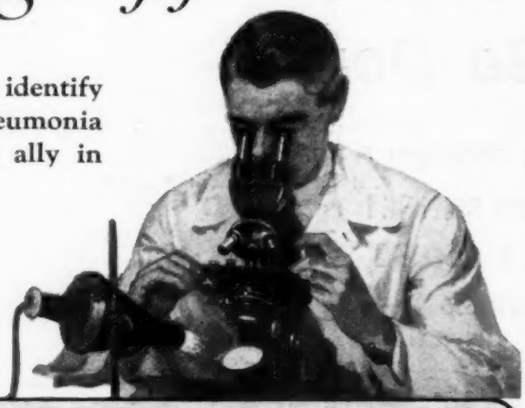
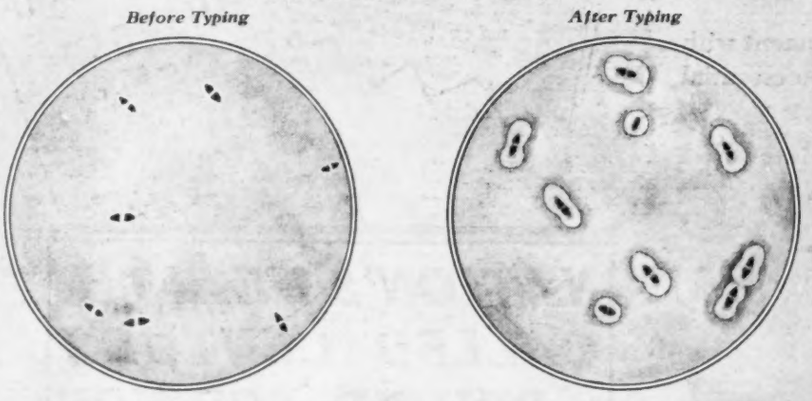
"Typing" *to fight Pneumonia*

A laboratory equipped to identify particular "types" of pneumonia germs is the physician's ally in helping to save lives.



Pneumonia Germs Under Microscope



Microscopic view of pneumococcus germs — principal cause of pneumonia. More than 30 types of such germs—identical in appearance—may cause pneumonia. Patient's germ-laden sputum is tested with "typing" serums, one for each type of pneumococcus.

When the "typing" serum corresponds to the type of pneumococcus in the sputum, the capsule (or covering) of the germ swells—a positive identification that tells the doctor which type of treatment serum to give the patient.

DRAMATIC progress has been made in "typing" pneumonia germs. Medical research has developed individual treatment serums for many of the "types" of pneumonia which these germs cause.

It is exceedingly important to discover pneumonia early so that sputum may be "typed" and proper serum administered promptly. If given properly and in time, these serums are highly effective in combatting the disease.

Medical and public health officials are bending every effort to make these serums generally available all over the country. In many cities and states they are provided at community expense to those unable to afford them.

Not all cases of pneumonia should or can have serum treatment. But all cases need prompt medical care and competent nursing. After an examination of the patient's sputum and blood, the doctor will determine the particular treatment needed.

Pneumonia may strike an apparently healthy person without warning, but usually it follows a cold or grippy infection or some unusual exposure or exhaustion.

The first symptoms of pneumonia are frequently a chill, followed by a fever, with pain in the side or the chest and coughing. Any one or any combination of these symptoms indicates illness and may be pneumonia. A doctor should be called at once. Pneumonia often works fast, and the physician must work faster to check the disease.

Winter and early spring are the months when colds and pneumonia are most frequent. If you have a severe cold, influenza, or grippe, take the precaution of resting and stay away from other people as much as possible.

Keep your vitality high with adequate nourishment and sleep. The Metropolitan booklet "Colds, Influenza, Pneumonia" gives further essential information about these diseases and their prevention and treatment. It also gives many suggestions for safeguarding winter health. Send a post card today for your free copy. Address Booklet Department 139-Z.

METROPOLITAN LIFE INSURANCE COMPANY

FREDERICK H. ECKER, *Chairman of the Board* LEROY A. LINCOLN, *President*

ONE MADISON AVENUE, NEW YORK, N. Y.

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HOW DO YOU RATE IN DECIBELS?

(Continued from page 27)

the responses might be so nearly equal that it is impossible to be sure which side wins. The decibel meter could definitely settle the matter of slight differences in sound just as the photograph definitely decides the horse race when the finish is too close to be judged by the eyes.

The decibel may become useful later for many other purposes. To begin with, school children might be decibel-rated to discover special aptitudes and so to help in the selection of suitable vocations.

This would naturally be a valuable means of testing those who aspire to sing, recite or play in public; likewise those who think of going in for the stage, the screen, the radio, the lecture platform or in fact any kind of public career. It should prove an excellent test for any one contemplating the legal profession; it would certainly give a valuable hint as to one's chances with a jury. Politicians too might gain some idea of their possible success in haranguing a mob or in addressing a legislative body.

Theatrical managers could no doubt turn this test to good account by studying decibel records of actors and actresses under varying circumstances. Playwrights might welcome it as a means of testing a particular skit or of certain features of a play to learn whether they are likely to "go over" or had better be deleted. Impresarios will find it of value to estimate accurately the popularity of a singer or to determine his particular forte.

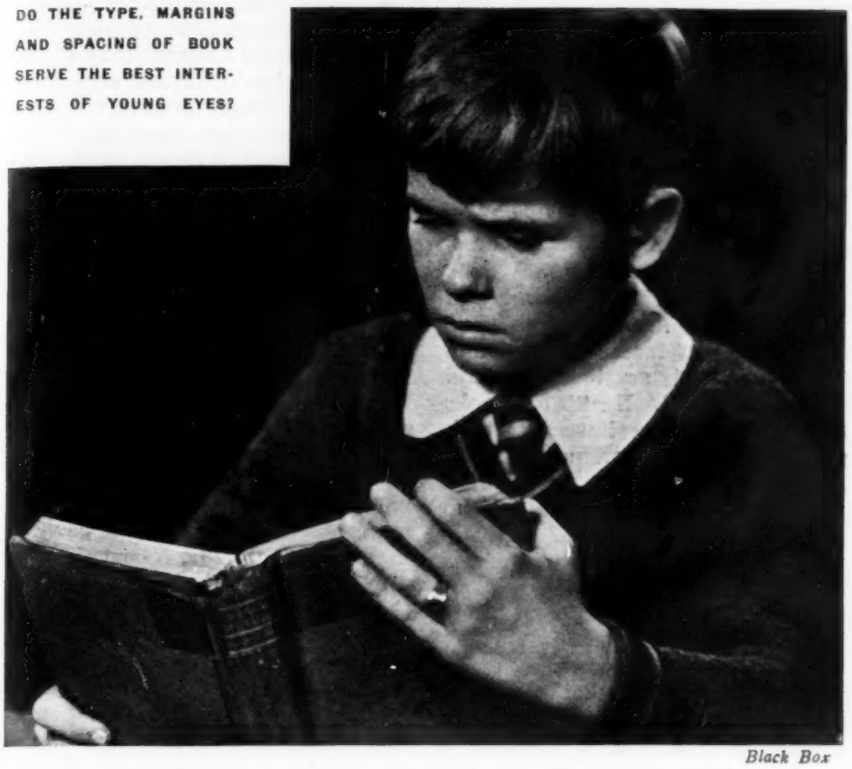
"Know thyself," said the poet philosopher, regarding this as the highest duty of man. But you can never fully know yourself unless you know your decibels. You may have good looks, health and riches, and yet be a total failure. You may even be clever, talented, skilful and learned, and still lack a certain something which spells success. If you really want to make a noise in the world, you must be "decibelious."

"Ah-AHH-AH"

(See page 45)

A limited number of original signed lithograph prints of these caricatures are available at a special discount. Please communicate with HYGEIA for further details.

DO THE TYPE, MARGINS AND SPACING OF BOOK SERVE THE BEST INTERESTS OF YOUNG EYES?



Black Box

SCHOOL and HEALTH

CHOOSING TEXTBOOKS ON HEALTH

Conducted by
J. MACE ANDRESS, Ph.D.

THIS IS the time of year when school superintendents, principals and teachers are beginning to think about the textbooks for the next school year. In our congested curriculum, textbooks are a necessity for the guidance of both teacher and pupil. Admitted that the needs and interests of boys and girls should be the center from which the teacher and pupils should work, good basal textbooks are as important as they ever were. Most schools and school libraries are so poorly equipped with reference material for children, and the methods of teaching are changing so rapidly that schools can scarcely hope to be up to date unless they are using the latest and best textbooks. Fortunately here in America we have the best textbooks in the world. Visitors to European schools note that they are using types of textbooks discarded by us a generation ago.

Probably most educators would agree that the selection of the teacher and sanitary school surroundings are of paramount importance to insure a successful school. Next in order would be the wise choice of textbooks.

What principles should guide the health educator in selecting textbooks? In what follows we shall try to present this problem through a series of twenty-one questions. These questions we believe represent the point of view of leading supervisors in health. You may find them suggestive as you consider this practical problem yourself. With reference to any series of health textbooks we might ask ourselves these pointed questions:

1. *Are they scientifically accurate?* This is the first hurdle to be negotiated. Nobody wants to teach children what is not true or fail to teach the latest and most helpful facts and practices about healthy living; yet there are school systems today using books which have not been revised for a dozen years or more. Such books can hardly lay claim to scientific accuracy since almost every week or month new discoveries in medicine and hygiene are being made. Some of these discoveries necessitate a change in theory and practice. To meet these changes no books should be used that have not been revised within a period of at least six or seven years. It is also well to look over the names of the authors to see whether they have a recognized standing in the fields of both health and education.

2. *Are the mechanics of the texts hygienically sound?* Reference is made here to the type, margins, spacing, paper and illustrations. Fortunately most textbooks in use conform reasonably well to hygienic standards. However, there are differences in books. Some books, for example, are much better for the eyes than others.

3. *Do they emphasize doing rather than memorizing and reciting?* Outmoded methods of health teaching conceived of instruction in hygiene as so much subject matter to be committed to memory; health education today thinks of health as a way of living. It concerns itself with such activities as eating nourishing food, cleaning the teeth, maintaining proper posture and learning to play games in the open air. The effective learning of modern hygiene also requires the remembering of facts and the expression of opinions concerning them; but what is most fundamental in a health text is the motivation of the reader to *live* healthfully day by day.

4. *Does the subject matter grow out of life situations?* If pupils are to understand, appreciate and apply the texts to everyday life they must be related to the world in which the child lives, and not an unreal

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To Contributors:—*The editor of the School and Health Department will be pleased to receive articles dealing with the actual solution of concrete and practical health education problems in the school. Contributions on general theory are not solicited. Articles must not exceed 1,000 words in length. Stamps should accompany manuscripts to insure their return if rejected. All articles accepted will be paid for at regular rates. Address Editor of School and Health Department of* HYGEIA, *67 Clyde Street, Newtonville, Mass.*

world of mere imagination and fantasy. These situations would be different in the first grade than in the junior high school. For example, children in the second grade would hardly be expected to know or learn anything about vitamins; but in the junior high school, pupils will have references to the various vitamins in their general science, will read about them in store advertisements and hear about them over the radio.

5. *Is the presentation of subject matter planned systematically through the grades?* A graded series of textbooks should be planned from the first grade up to and including high school so as to cover the major and minor problems of health. Among these problems should be cleanliness, growth, food, teeth, digestion, habits of eating and manners and body wastes. It is a serious criticism of any set of texts to have important problems omitted. Not only should care be taken to cover the complete range of problems but each one should be introduced at the proper place according to the pupil's needs, capacity and interest. Varying aspects of each problem should be repeated through the different books. As an example, take cleanliness. This is of such primary and fundamental importance that it should be introduced into the first grade. In many courses of study this has been the central topic of the first grade. In this grade, children might well learn about the need of washing their hands before eating for the sake of their health. In the upper grades this would still be emphasized, but the relation of cleanliness to community health would now naturally appear in the foreground.

The planning of the various health activities through the book requires careful study of children and courses of study. One recent health series has made a careful survey of over a hundred courses of study. In general it is preferable to use a complete series through the grades of a school rather than the individual books of several series since the survey of subject matter and activities is likely to be more complete.

6. *Is the subject matter organized in "units of work"?* There is a variety of meanings given to the phrase "units of work," but there is one characteristic about all these conceptions with which most educators would probably agree; namely, a large grouping of related facts dealing with the solution of one major problem. This seems to be psychologically sound. The committing to memory of scattered and unrelated facts has had its day. Purposeful thinking has taken its place. In this important process, pupils are aided to marshal facts from many sources in the solution of a problem. As a result there is an outcome in facts acquired and so interrelated as to be useful and remembered. Health textbooks today that do not have this unit plan of organization are almost hopelessly out of date.

7. *Is the vocabulary related to the various grade levels?* Educational psychologists have made a careful study of the vocabularies of children at different age and grade levels so that it is possible today to prepare a textbook for any grade and know definitely that it may be read by the average pupil with a minimum of difficulty. This is a great advantage educationally, and no series of books should be adopted for use that has not been prepared carefully with the aid of authoritative word lists.

8. *Do they conform in every way to the requirements of our best school readers?* Since many of the books of a health series, especially those in the lower grades, will also be used as readers they should be as good psychologically and educationally as the best readers on the market. The psychology of reading has now become a highly technical subject based on many classroom and laboratory experiments. Health books in the lower grades should therefore be written or at least carefully checked by experts in reading. An example of one of the technical aspects of the subject is vocabulary control. This means that only a certain number of new words may be introduced on a given page and that each of these words shall be repeated a certain number of times in the pages that follow until their meaning is mastered.

9. *Are they well illustrated?* This is the age of photography. Motion pictures, magazines, newspapers and children's recreational books are making a strong appeal through pictures. Our best health books today are capitalizing this appeal to the eye. Some of them are appearing with a new format, larger

DOES THE TEXTBOOK EMPHASIZE DOING, RATHER THAN ROTE MEMORIZING AND THEN RECITING?

pages so that larger pictures may be used, beautiful colored photographs and other art innovations that mark a new era in the evolution of health texts. Some of the more recent health texts for children are equal if not superior in attractiveness to the books for children in our boys' and girls' book shops.

Not only should illustrations be attractive to the eye but they should teach vital and wholesome truths and be an integral part of the book. There should be references in the text to the illustrations, and the captions of the illustrations should have questions and state problems. Teachers have every reason today to expect health texts to invite pupils to look, wonder, think, read and do. They should make health attractive.

10. *Do they promote wholesome attitudes?* Our best health textbooks today seek to avoid the morbid and emphasize healthy living. There is less on disease and more on health. The symptoms of disease, mortality statistics, and the gruesome aspects of sickness and death require little attention. In their place the victories of personal hygiene and sanitation should be glorified. Man's conquest over typhoid, malaria, diphtheria and other diseases may be magnified and the fear of disease and death be minimized. Too many health books today have ugly anatomic drawings that make the study of physiology repulsive. Our best books have made special effort to present physiology and anatomy in an attractive fashion. Textbooks that repel boys and girls should never be used in our schools.

11. *Do they encourage mental health?* Healthy living is something more than the removal of diseased tonsils and adenoids, eating nutritious food and visiting the dentist every six months. It concerns itself with facing the problems of life successfully. Obviously physical health helps rather than retards this success although there are many boys and girls physically healthy who find it difficult to get along with their fellow pupils and others. It has been proved again and again that fears, obsessions and morbid attitudes are just as truly defects as a broken leg or an infected thumb. It is also true that one may have physical handicaps, and yet like Robert Louis Stevenson, Elizabeth Barrett Browning and Helen Keller adjust oneself victoriously to life. Health books should be shot through with the spirit of hope, cheerfulness and happiness. They should encourage the fine arts of self management and living together in peace and cooperation.

12. *Do they review briefly the lives of the heroes of hygiene and medicine?* No stories from real life are more thrilling or inspiring than the biographies of the men and women who have fought unselfishly in the conquest of disease. Biographic sketches of Pasteur, Koch, Trudeau, Leeuwenhoeck, Curie, Reed and Banting not only teach worthwhile hygiene but greatly stimulate the interest of pupils in health problems. No health series should be without these notes of victory.

13. *Do they promote a scientific spirit?* Medicine and hygiene grew out of magic, superstition and unreliable tradition. These forces are still at work. The gullibility of the general public is so great that it is willing to accept uncritically suggestions on health that come from those who are untrained, to believe the misleading and highly pernicious advertising that floods our radio programs and to welcome health fads and fancies.

Textbooks on health should give pupils an idea of what science is and how it developed and should indicate how conclusions are reached by carefully controlled experiments and accurate handling of facts. Classroom or laboratory work in which pupils are taught to experiment, observe, record and draw conclusions may do much to encourage the scientific spirit.

14. *Do they contain essential physiology and anatomy?* A decade or so ago there was a sharp reaction against the teaching of the old-fashioned physiology and anatomy. The period in which they were taught has sometimes been referred to facetiously as the "bone age." It was a period when dry facts about physiology and anatomy were committed to memory mechanically with little or no reference to healthy living. Such teaching has gone forever; but today health educators realize that there is a need for those essentials of physiology and anatomy that will make clear to pupils how the body does its work, so they may better cooperate with it to promote healthful living. A good slogan for the new physiology would be "Helping the Body in Its Work."

15. *Do they correlate with other school subjects?* Since health is a way of life and not something which is merely taught from a book in a certain number of minutes in a class period, textbooks on health should refer pupils and teachers to allied material in history, general science, chemistry, botany, social studies, geography and other subjects. The up-to-date textbook will point out various opportunities in the school program to teach health.

16. *Do they deal adequately and fairly with the alcohol, tobacco and drug problems?* Our country made one of the most ambitious experiments in all history when it prohibited the sale of intoxicating liquors. The amendment providing for prohibition was repealed not primarily because there were no evils in the liquor traffic or in drinking but because of the belief that the law was not and could not be enforced. When the prohibition laws went into effect, instruction concerning liquor began to disappear from our textbooks because there seemed to be no further need for it. But now with the return of the laws making drinking legal many of our textbooks do not offer adequate instruction although the laws of practically every state make it compulsory. The evils of intemperance are obvious, and there seems to be as great a need for this instruction as ever. It should be presented to our children and young people not as moral pabulum but from a strictly scientific point of view. Our pupils have a right to know the truth about alcohol, tobacco and drug addiction.

17. *Do they deal effectively with safety and emergencies?* The machine age has brought with it great dangers. Every year about 100,000 people lose their lives in the United States from accidents while about 1,000,000 are more or less seriously injured. It has now been proved that accidents to school children may be reduced by adequate training. The prevention of injury and death and the care of those injured are so important that instruction in this field should begin with the first grade book in a health series and run systematically through every year.

18. *Do they stimulate initiative and investigation?* Modern educa-

tion prides itself on its success in making pupils self reliant. Our best health textbooks, through exercises at the end of the units and suggestions in the body of the text, lead pupils to study their own homes and communities, to try out original experiments and to discover new problems for themselves.

19. *Do they contain necessary pupil aids?* Even the best written books require aids for pupils and teachers. In this respect there has been marked improvement within recent years. Our best health books have exercise material at the end of chapters or units, glossaries, indexes, word studies, tests and bibliographies. They are supported by teachers' manuals and workbooks for pupils.

20. *Do they help satisfy individual health needs?* The goal of up-to-date health education is to give every boy and girl that instruction, training and supervision which he or she may need. John, who has poor posture, learns how to sit and stand correctly. Helen, who fails in her school work because of a lack of sleep, learns to get to bed earlier. Every pupil achieves that which is most needed for individual health and happiness. Both pupils and teachers should be sensitive to these needs. Such an attitude may be promoted by questions in the texts, illustrations and exercise material at the end of units and also in workbooks and teachers' manuals or guides. *The meeting of individual health needs is the foundation of all good health teaching.* If there is a failure here the whole temple of health trembles, totters and finally falls!

21. *Do they command the pupils' interest?* This is an important point in which no series of health books should fail. It is true that interest is not everything; but books which fail to get and keep the interest of boys and girls fail to perform their function, for interest properly directed cultivates favorable attitudes and drives the reader into action. The ideal health text makes safe and healthy living so intriguing that boys and girls are moved to try the great adventure.

Books which conform to the principles laid down in the twenty preceding suggestions are likely to be interesting. One way to make sure of the attention and interest drawing power of books is to try them out with a group of average pupils. The proof of the pudding is in the eating.

Food Experiments for the Classroom: V

By ETHEL AUSTIN MARTIN

Vitamins and water in foods are discussed by Mrs. Martin, the director of Nutrition Service, National Dairy Council. Children know from general observation that many foods contain water. Experiments not only prove this but show striking differences between them.

THE functions of the last two of the six dietary essentials required for life and health—vitamins and water—differ widely; yet they are associated under the general term "body regulators." In addition, water, as an essential part of all body cells, functions as a body builder.

To a large extent the foods which are rich in mineral elements, discussed in last month's article, are also rich in vitamins. Dairy products, vegetables, fruits, eggs and whole grain cereals can be depended on to furnish the needed vitamins daily if taken in sufficient quantity. In the main, different classes of food are particularly important for different vitamins. It is good practice, therefore, to choose a varied diet.

The vitamins now generally recognized as of importance in human nutrition are: A, B_1, C, D, G (B_2) and the P-P factor, or pellagra-preventive factor. It is not desirable, however, for children in the intermediate and lower grades to learn the vitamins by name or, to any great extent, to associate individual vitamins with certain foods. It is far better that they learn to associate protective foods with good health. They should know, for example, that fruit is an important item in daily menus, instead of that fruits should be eaten for their vitamin C content.

Fruits a Palatable Source of Vitamins

Most children do not need to be taught to like fruits. The problem is rather one of urging the regular use of raw fruits and the desirability of substituting fruits frequently for the more concentrated sweets. In the main all fresh raw fruits and tomatoes are our best sources of vitamin C. And because vitamin C is, for the most part, easily destroyed by heat and exposure to air, the fresh fruit habit is one to establish early. Citrus fruits and tomatoes (and their juices) are particularly dependable sources of vitamin C because the vitamin remains relatively stable through canning and cooking processes.

So strongly has the fruit habit been urged by doctors, nutritionists and teachers that the consumption of fresh fruit has increased greatly in this country in recent years. In 1919, 23,238,000 boxes of oranges are reported to have been produced in seven western and southern states. In sharp contrast, 52,928,000 boxes of oranges were produced in 1935 in the same states. Thus the quantity was more than doubled in the brief period of six years. Several other of the more popular fruits show similar increases. In 1934, 45 million bushels of peaches were produced in the United States. Many peaches are sold in dried form. About 200,000 tons of peaches are dried in this country every year. The estimated per capita consumption of all dried fruits was more than five pounds for the year 1927. A large part of this amount consisted of prunes and raisins. For the same year the per capita consumption of canned fruits was approximately ten pounds, with peaches and pineapple accounting for more than half.

Application to the Classroom

Vitamins

There is no suitable method for young children to test for individual vitamins in the classroom. Often more than one vitamin is present in a food, and usually they are associated with other dietary essentials important to growth and health. Thus a favorite way of comparing highly protective (vitamin and mineral-rich) foods with those less important is to conduct an animal feeding demonstration in the classroom. Such a demonstration con-

sists of feeding two animals or two groups of animals over a period of a few weeks, one receiving a poor diet and the other a good one. Contrasts in growth, appearance and even in disposition of the two animals or groups are noted by the class, and application is made to their own food habits. Simple directions for conducting such demonstrations are available, and many first-hand experiences with such demonstrations have been reported, from time to time, in this section of the magazine.

In advanced classes individual vitamins may be tested on experimental animals if the teacher is well equipped to direct the work. In any case such a demonstration should be attempted only after a general feeding project suggested in the preceding paragraph is carried through successfully. Above all, children should understand that vitamins, like other dietary essentials, occur naturally in foods and that the best way to obtain a sufficient amount of them daily is by eating an adequate diet.

The fact that individual vitamins *can* be tested individually now is due to rapid strides made recently in identifying and purifying several of the vitamins. Such a test involves feeding two groups of rats, for example, exactly the same foods except that one group receives in addition a specified amount of the purified vitamin preparation to be tested. The basal diet of the two groups of animals must be adequate in all other dietary essentials except the one to be tested but entirely lacking in that particular one. If one such vitamin preparation is tested, there is practical value in testing a second or third one. Additional tests will show that while vitamins have individual functions they also have overlapping functions, particularly with respect to growth and health. The tests will suggest that a varied diet containing a liberal proportion of protective foods is the safest plan to follow.

THESE FRUITS AND VEGETABLES ARE HIGH IN WATER CONTENT.

Water

Water is as important to good health as food. In addition to the water we drink, many foods contain water also, and the water which we obtain from foods makes up an important part of the total amount which we take daily. Some foods contain much more water than others. Fruits and vegetables, for example, particularly the juicy types of fruits and such vegetables as "greens," celery and radishes contain a high percentage of water. The accompanying photograph shows fruits and vegetables which, as a group, are high in water content. More solid foods, such as meats, cereals and fats, contain less water. The following experiment suggests a simple way in which students may learn which of our daily foods contain water.

Experiment with Water in Foods

Problem

To show that some foods contain considerable amounts of water

Materials

Bread	Cornstarch
Milk	Saucers or flat dishes
Tomatoes	
Lettuce	Scales (optional)

Ninth Experiment

Place a slice of fresh bread on a radiator or in some other warm dry place. Examine it in an hour. The bread is now dry and crusty due to the fact that some of the water has evaporated from it. Place ¼ cupful milk in a flat dish and leave in a warm dry place overnight. Test in a similar way ¼ cupful canned tomatoes, several thin slices of fresh tomato, several lettuce leaves and 1 tablespoonful cornstarch.

Results

Bread, milk, tomatoes and lettuce contain water, as shown by the fact that they dry out or shrivel on exposure for several hours to warm dry air. Cornstarch contains almost no water since it does not change in consistency or appearance when exposed under similar conditions.

Conclusions

Whether or not foods contain water can be determined by exposing them under suitable conditions in a warm dry place.

Application to Upper Grades

Upper grade students will be interested in concrete evidence that many foods contain water. If it is possible to obtain a scale the food may be weighed before and after the drying process. A simple homemade balance, which is only approximately accurate, will serve the purpose, for it is more important to show that there *is* a difference in weight after drying than it is to know the exact amount.

References

Teacher: SCIENCE AND THE WAY TO HEALTH by J. Mace Andress and Maud A. Brown. Cloth. Price, 81. Pp. 367. Illustrated. Boston: Ginn & Co., 1929.

Pupils: EXPERIMENTS IN HEALTH by J. Mace Andress and Maud A. Brown. Paper. Price, 48 cents. Pp. 208. Boston: Ginn & Co., 1929.

WATCH THEM GROW. Directions for conducting classroom demonstrations with white rats, how to make the cages and prepare the foods. National Dairy Council, Chicago.

Little Journeys Among High Schools: V

By JEAN V. LATIMER

There is increasing emphasis today on first aid instruction in our high schools. This is due in part to the tendency to make education practical. It is also closely associated with safety education, which is now receiving so much attention in our schools. In this article, "First Aid in the New Health Program," Jean V. Latimer tells about the means by which teaching in first aid is finding its way into our high schools. Miss Latimer is Coordinator of Health Education, Division of Child Hygiene, Massachusetts Department of Public Health.

WHEN one analyzes the possibilities of the practical and social teaching values of first aid, one is not surprised to find a growing recognition of this aspect of the health curriculum in the secondary schools today. Certainly first aid is one phase of health teaching which is immediately applicable in the lives of high school pupils. Accidents both in the home and outside are increasing at an alarming rate. More people between the ages of 3 and 18 years are killed by accident than by any one disease. Moreover, the high school age is the time for the rise of accidents out of the home. It is at this time especially that deaths from drowning, firearms and automobiles reach their highest level.

Some years ago the teaching of first aid was largely in terms of club activities, but now there is a trend to have organized units of instruction in the regular health curriculum. In one high school I observed a class of boys being taught for two periods a week for a half year, as a part of the health and physical education program.

In another large senior high school, first aid is now being given as a regular part of the course in so-called practical physiology. This is given in the science department to seniors who meet four times a week for seven consecutive weeks, making a total of twenty-eight periods.

The most satisfactory procedures I have observed have been in affiliation with the American Red Cross. Such classes use as their textbook the standard First Aid Manual prepared by the American Red Cross. Pupils who have completed a minimum of twenty hours of instruction under an instructor holding a card of appointment as a Red Cross First Aid Instructor are eligible for the Red Cross Standard First Aid Examination. Students under 17 years of age who have completed the second year requirements for senior high schools are eligible for this course. Certainly since such a large part of first aid is involved in learning skills, it is especially important that the instructor have not only the knowledge but also recognized skill for demonstration and practice work. Possibly no other phase in the health education curriculum offers so many possibilities for a practical demonstration of "learn by doing."

What are some of these activities? I observed a class learning to make a tourniquet. Paul Smith was discussing the circulation and pointing out how important it is to notice the character of the bleeding of a wound: that the blood is bright red and comes out in spurts if it is coming from an artery leading away from the heart; that it is dull red in color and flows steadily if it is coming from a vein going toward the heart, and that it is probably coming from a network of capillaries if it just oozes. All these are practical and important physiologic facts.

Which of us, having suffered from amateur bandaging, does not want this art taught to high school boys and girls? Developing such skills is well worth the amount of time taken. In a nearby city I was gratified to see that sufficient time was given for the class to practice on each other in putting on slings, strapping the knee and applying bandages to different parts of the body.

Since drug store bandages are expensive and not always available in an emergency, one teacher told me she spent some time in teaching her class how to make a triangular and a roller bandage out of such materials as muslin, flannel, gauze or cheesecloth, emphasizing at the same time that such bandages cannot be placed directly on the wound because they are not sterile.

I observed another class using first aid for wounds as an opportunity for reviewing their knowledge of bacteria. Their argument regarding various disinfectants and their effectiveness led the teacher to suggest that they take as an activity the equipping of a first aid kit. The expense of equipment was limited to $1.50.

One teacher secured the cooperation of the home for making a study of first aid remedies and for allowing pupils to assist in renovating the home medicine chests.

A senior high school boy told me he had never understood the mechanism of the lungs until he learned artificial respiration as a part of his first aid course.

First aid as applied to the care of the sense organs is certainly within the life experiences of the pupils. I was especially gratified to listen in to a class discussion on the care of the eyes, ears and nose and to hear the boys and girls themselves give the reasons why a match or toothpick or anything else should not be poked into the ears. Other pupils showed how to remove a cinder from the eye.

Since the objectives of such a course are closely associated with prevention of accidents, as well as giving the proper emergency care when they occur, I was not surprised to find an intelligent group of pupils discussing the kinds of accidents which had occurred in their neighborhoods during the past six months. I noticed on the walls of this classroom a series of posters made by the class to illustrate hazards in the home. The same group was then working on a similar series of posters showing hazards of the outdoors.

Emphasis is now being placed on the safe use of the automobile. I know of two high schools in our state in which instruction in safe driving is being given as a regular part of the curriculum.

There is also an increasing recognition that the school itself should be careful as to who renders first aid. The school nurse, unless she is assigned full time to the high

(Continued on page 87)

YOUR EYES—WHAT TO DO WHEN IN TROUBLE

(Continued from page 14)

result only in still greater elongation of the eye. A more elongated eyeball, on the other hand, demands still greater convergence. A vicious circle is thus established of pulling and stretching until a point is reached where the retina tears and becomes detached, resulting in blindness. The early correction of nearsightedness by means of glasses, by eliminating the need for overconvergence, will thus prevent destructive changes within the eyeballs.

The visual portion of the brain may suffer in more than one way because of a short or long eyeball. Faulty mental concentration, fatigue and various types of headache are familiar forms of brain irritation and exhaustion due to eyestrain. Moreover, that part of the brain that serves in the function of sight may even lose the ability to interpret visual images altogether and cause virtual blindness of the eye which it normally serves. This is frequently observed in cross eye or squint where farsightedness or the short eyeball is a prominent feature. The brain, because of the abnormal position of the eyes, is unable to fuse both images; it therefore interprets only one and suppresses the other from the squinting eye in the interest of single vision and to obviate the mental confusion which would otherwise result from double vision. Habitual suppression in time leads to permanent abrogation of function on the part of the brain to interpret images and therefore loss of efficiency of the squinting eye. This illustrates well how the brain itself may suffer loss of function as a result of an eyeball of faulty dimensions. This is also the reason why it is important to restore the normal position of crossed eyes at an early age; it can be done by means of glasses either with or without operation to prevent blindness in the squinting eye.

The twelve ocular muscles are likewise subject to various disturbances as a result of a short or long eyeball. Eyes which are either short or long by creating the conditions for excessive accommodation or convergence give rise to varying degrees of muscular imbalance. The efforts to maintain binocular vision under these circumstances cause some of the worst forms of eyestrain, which clear up promptly however when glasses for correcting the excessive length or shortness of the eyes are prescribed. Eyes which are extremely short may in fact present insuperable obstacles to binocular vision. Even with the utmost effort both eyes cannot be kept in line, and the individual is compelled to give up seeing with the two eyes at once. One eye turns aside, inward or outward, and there results the condition of squint or cross eye. In the treatment of squint therefore the correction of refractive errors is of greatest importance.

It thus becomes clear that not only do eyeballs faulty in their dimensions, as in farsightedness, nearsightedness or astigmatism, cause poor sight, but frequently there is actual damage to the visual mechanism itself as well as various mental and physical disturbances due to eyestrain. By far the greatest number of people having difficulties with their eyes belong in this group. It is fortunate that the treatment here simply consists of early correction of the refractive error by means of glasses that neutralize the excessive length or shortness of the eyes, as the case may be.

These facts should impress the general public with the importance of the early correction of refractive errors, especially in young children. Eye trouble is much more easily prevented than cured. The treatment is often simple and may mean no more than a pair of properly fitting glasses. The phrase "properly fitting glasses" is used here advisedly, since glasses that are incorrectly prescribed or fitted, as they frequently are, will not correct the trouble but in fact aggravate it, a case of the "cure" being worse than the disease. Eye physicians prescribe glasses only on the basis of a careful eye examination and only after taking note of the presence or absence of disease or abnormality. It should be remembered, however, that most visual disturbances have their origin in the abnormal shape of the eyes, and these lend themselves to correction by means of glasses.

(To be concluded)

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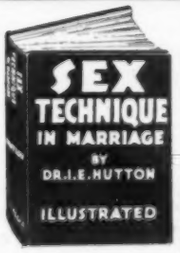

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TO AMERICA'S SCHOOLS *Your Health!*

DODGING CONTAGIOUS DISEASES

THE radio program "Your Health" takes up a new group of topics beginning January 11 and running through February 1, with more and more schools in all parts of the country tuning in and using the radio dramas as fascinating helps for health teaching.

The new group of programs deals with the avoidance of contagious diseases, including colds, pneumonia and influenza; scarlet fever, measles and whooping cough; smallpox and diphtheria, and the prevention of epidemics.

New developments are constantly appearing in medical science. While the fundamental problem of colds remains unsolved, modern knowledge recognizes the importance of infection and transmission from person to person as one of the reasons why colds are common during fall, winter and spring. The infectious agent, too small to be visualized by the microscope, has, nevertheless, been studied, and many of its characteristics are known. It is spread from person to person by coughing, sneezing, loud talking, boisterous laughter, kissing and by infected handkerchiefs. To a somewhat lesser extent it may be transmitted by carelessly washed eating utensils or by unhygienic habits, such as the borrowing of cigaret holders, pipes and musical instruments.

Other factors in the prevalence of colds are heat and dryness of indoor air, unwise habits with relation to clothing and carelessness about a well rounded diet, which indirectly affects body chemistry and resistance.

Pneumonia and influenza may complicate the neglected cold or may take place as independent infections. Not much is known about the prevention or successful treatment of influenza; but new knowledge with relation to pneumonia is developing fast. The most important new factor in pneumonia treatment is the availability of serum, which has been remarkably successful in certain types of pneumonia.

Cases of pneumonia have been classified into a large number of types, for some of which effective serums have been found. Cooperation between the medical profession and public health departments has developed important pneumonia control programs in which the practitioner is aided by laboratory diagnosis and the prompt availability of the correct type of serum based on the observations made in the laboratory.

Scarlet fever, though less prevalent and less serious than heretofore, is still a dangerous and tricky disease. Precaution against its spread is based largely on early recognition and prompt quarantine of cases. Tests for susceptibility and injection methods for prevention are extensively used with considerable success. A serum exists for the treatment of appropriate cases.

Measles is still among the most serious problems because it is highly contagious, very widespread and difficult to control. Efforts to prevent the spread of measles meet with small success; but mortality and complications are successfully reduced by the use of human convalescent serum for prevention and treatment.

The situation with respect to whooping cough is more satisfactory than ever before with the development of a vaccine which can be given to young babies. Many reports have indicated great success, and the method has been demonstrated to be without likelihood of danger.

Smallpox and diphtheria can be completely conquered by vaccination for the former and toxoid administration for the latter. All that remains to insure the eradication of these diseases is the acceptance, by parents, of these preventive measures, both of which should be undertaken during the second six months of the infant's life.

Prevention of epidemics is based on prompt reporting of cases by physicians, the keeping of careful records by health departments and the swift and relentless follow-up of exposed persons, among whom the next cases are certain to appear. If every person exposed to the first case of communicable disease in a locality could be identified and properly dealt with there would be no epidemic. Epidemiology, the science of epidemics, is as fascinating as the detective work which leads to the solution of a murder mystery. Epidemic diseases are not 100 per cent controllable; but they can be controlled far more completely than they are. The secret of such control is adequate health organization in every community, whether it be large or

Rothstein

IMMUNIZATION IS ONE OF THE MOST EFFECTIVE WEAPONS IN THE FIGHT AGAINST THE SPREAD OF DISEASE. OTHER METHODS OF PREVENTION INCLUDE REPORTING OF CASES AND FOLLOW-UP OF ALL PERSONS WHO HAVE BEEN EXPOSED TO THE DISEASE.

small, city or rural, plus complete public cooperation.

All these facts and many more will be presented in vivid living drama, written especially for the "Your Health" program by a professional radio script writer and dramatized by casts of well known actors affiliated with the National Broadcasting Company. Sound effects and music enliven and enrich the program.

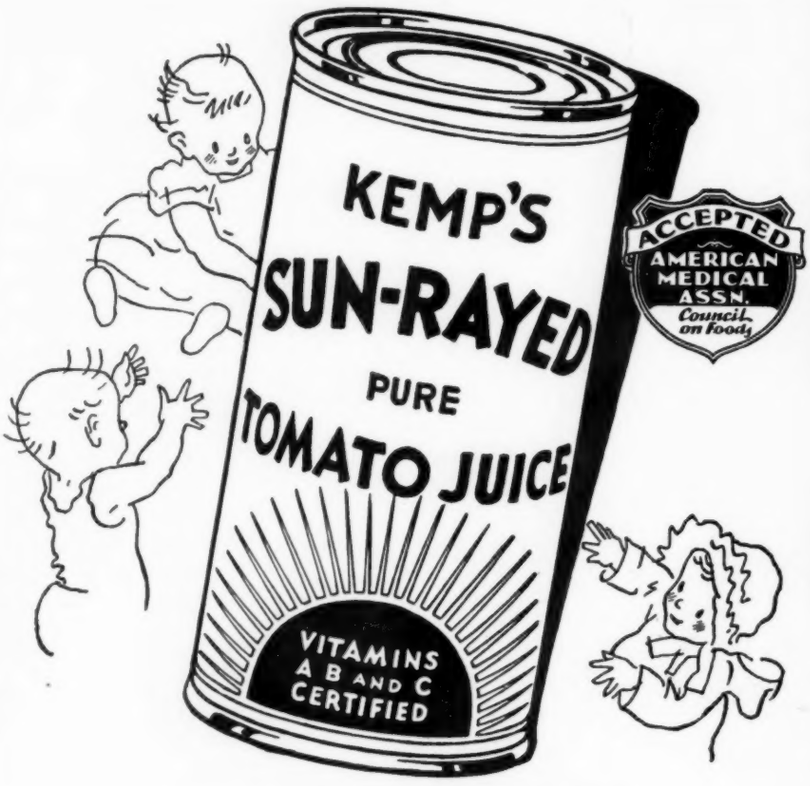
For enlightenment and entertainment, tune in on the nearest National Broadcasting Company station connected with the Blue Network at 2 p. m. eastern standard time (1 p. m., c. s. t.; 12 noon, m. s. t.; 11 a. m., p. s. t.) on the following dates:

January 11: Only a Cold!
Cause, spread, prevention of colds, pneumonia and influenza; importance of early medical care.

January 18: Scarlet Fever, Measles and Whooping Cough
Modern attitudes toward these diseases; prevention by community cooperation.

January 25: Smallpox and Diphtheria
Unnecessary diseases; preventable by immunization of infants.

February 1: Preventing Epidemics
Reporting of cases, quarantine and other control measures.



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Write for free 24-page recipe book, *"40 Ways to Serve Tomato Juice,"* Sun-Rayed Co., Dept. H, Frankfort, Indiana.

Kemp's SUN-RAYED
PURE TOMATO JUICE

★ NEVER THIN OR WATERY ★

FALSE PRIDE and FALSE TEETH

(Continued from page 42)

experience, although this gives him courage to go on and tackle each new case. Many dentists are not dental surgeons, so they cannot perform the bone operation. Instead they try to change the profile by bringing the lower jaw out to meet the upper, or vice versa, according to the problem. For short chins the dentist often makes the teeth longer, to fill out the loose tissue which is so soft about the mouth. If a chin is too long he will shorten the teeth as much as possible. But one standard is used, although not closely adhered to if it spoils the natural appearance of the patient; namely, that the surface of the upper lip should be even with the lower edge of the upper teeth and the surface of the lower lip even with the upper edge of the lower teeth when the mouth is at rest. If, when the mouth is at rest, the teeth do not reach the lip, this shows there is too much tissue around the mouth and that there is plenty of room for larger teeth than nature provided.

The material used in making teeth does not play so large a part in the cost as one might think, but it plays a decided part in the satisfaction of the patient.

The material, to be satisfactory, should not stain with the use of tobacco or other chemicals found in food. It should not wear down, and above all it should appear natural. One of the most popular materials used in making gums is vulcanite. When this material was brought out, false teeth came into the reach of the poor. In the olden days false teeth were often set in metal gums. These not only were cumbersome and uncomfortable but were made of gold and silver and were as expensive as they were heavy. Today materials are available which have a natural appearance, last a long time and do not stain. The teeth themselves are always porcelain, so there is no difference in the material.

As the public become more conscious of the ease of replacements and the perfectly natural appearance obtainable with the new materials, with modern methods of grouping and classifying the forms of teeth and with the dental surgery which can beautify a patient's mouth, they will give up bad teeth and take one more step toward good health.

VITAMIN C *via* TOMATO JUICE

MANY HOMEMAKERS depend on canned * tomato juice to furnish their families with the daily quota of vitamin C. Their confidence is apparently well placed in this convenient and inexpensive source of vitamin C. In the fall of 1937 the American Medical Association Council on Foods made a survey of the vitamin C content of accepted brands of tomato juice. Seventeen brands of canned tomato juice were examined. A much larger number of brands of tomato juice stand accepted, but many of these represent distributor label brands of accepted tomato juices. According to these analyses, tomato juice contains an average of 114 international units of vitamin C per ounce, or about 900 international units of vitamin C per cup (8 ounce size).

Various authorities agree that the foods we select each day should provide about 1,000 international units of vitamin C. Small children need just as much vitamin C as adults, perhaps more. Physicians usually prescribe orange juice, tomato juice or some other vitamin C food to babies as early as the third week of life. So we need vitamin C all our lives; and in babies who do not receive it and in oldsters who do not take it, scurvy, a vitamin C deficiency disease, may develop. Vitamin C is found chiefly in fresh fruits and vegetables. There is about two and one-half times as much of it in an ounce of fresh orange juice as in an ounce of canned tomato juice; but as canned tomato juice costs less than fresh orange juice, the cost per vitamin C equivalent is less, at most seasons, if canned tomato juice is used.

In addition to vitamin C, canned tomato juice is rated by the Council as an excellent source of vitamin A and a good source of vitamin B_1 and contains vitamin G. A 4 ounce serving of tomato juice would provide 500 international units of vitamin A, which is approximately one fourth of the daily allowance for this vitamin; 28 international units of vitamin B_1, approximately one eleventh of the daily allowance, and 24 Sherman units of vitamin G, approximately one twenty-fifth of the daily allowance. The chemical composition of accepted brands of tomato juice is:

Water	91.7 - 95.2%
Total solids	4.8 - 8.3%
Ash	0.5 - 1.4%
Fat	0.0 - 0.7%
Protein	0.6 - 1.3%
Carbohydrates	3.0 - 5.8%

There are from 16 to 30 calories in a hundred gram (3½ oz.) portion of tomato juice. The low caloric value of tomato juice makes it particularly useful as a source of vitamin C for persons on diabetic or reducing diets.

In the preparation of commercially canned tomato juice the fresh tomatoes are forced through a cylindric metal sieve to separate seeds and skin from pulp and juice. The juice and pulp mixture may then be pressed through a homogenizer under tremendous pressure. This process divides the particles of pulp so finely that they remain permanently suspended in the liquid and do not settle down in the bottom of the can, insuring a uniform consistency. Since vitamin C is readily destroyed by exposure to air, particularly on heating, the temperature of the juice is raised rapidly in order to drive out dissolved air, and the canning operation is carried out in a so-called closed system in which air is excluded.

Home canned tomato juice may have as much vitamin C as commercially canned tomato juice, provided it is canned by proper methods. But if tomato juice is boiled for a long time in an open kettle before it is canned, much of the vitamin C is destroyed. Keeping the vitamin C is one of the goals of the

ACCEPTED TOMATO JUICE

The following brands of tomato juice stand accepted by the American Medical Association's Council on Foods, as of Dec. 1, 1938:

Alice of Old Vincennes Tomato Juice
American Lady Tomato Juice
Apollo Tomato Juice
Beech-Nut Tomato Juice
Belvedere Tomato Juice
Blue Bar Tomato Juice
Blue Label Tomato Juice
California Home Tomato Juice
Cellu Tomato Juice
Chapin Tomato Juice
Clorco Tomato Juice
Clover Farm Tomato Juice
College Inn Tomato Juice
College Inn Tomato Juice Cocktail
Crosse & Blackwell Tomato Juice
Dale Tomato Juice
Defender Tomato Juice
Diamond Island Tomato Juice
Ecco Tomato Juice
18-K Tomato Juice
Empson's Tomato Juice
Fairway White Label Tomato Juice
Faultless Tomato Juice
Ffog Tomato Juice
Filigree Tomato Juice
Fi-Na-St Tomato Juice
Fleetwood Tomato Juice
Fort Hamilton Tomato Juice
Frankford Tomato Juice
French Lick Tomato Juice
Garden Tomato Juice
Gibbs Tomato Juice
Gibson Tomato Juice
Glendora Tomato Juice
Good Morning Tomato Juice
Goodyear Tomato Juice
Grisdale Tomato Juice
Hales Pride Tomato Juice
Heart of America Tomato Juice
Heinz Tomato Juice
Herald Tomato Juice
Hurff Tomato Juice
Jack Sprat Tomato Juice
Johnson's Bestovall Tomato Juice
Kamo Tomato Juice
Kemp's Sun-Rayed Tomato Juice
Kuner's Tomato Juice
Leslie Tomato Juice
Libby's Tomato Juice
Loudon Tomato Juice
Marshall Tomato Juice
Milton Tomato Juice
Minute Man Tomato Juice
Muri Tomato Juice
None-Such Tomato Juice
North East Tomato Juice
Nutradiet Tomato Juice
Pickwick Tomato Juice
Pice-Zing Tomato Juice
Pride of Egypt Tomato Juice
Pride of the Farm Tomato Juice
Radio Tomato Juice
Ritter Tomato Juice
Ronnoc Tomato Juice
Santa Fe Tomato Juice
Secco Tomato Juice
Standby Tomato Juice
Stewart's Tomato Juice
Stokely's Tomato Juice
Sunrise Tomato Juice
Sunshine Tomato Juice
Supreme Tomato Juice
Sweet Violet Tomato Juice
Swift's Tomato Juice
Thames Valley Tomato Juice
Topmost Tomato Juice
Triple AAA Tomato Juice
Uncle William Tomato Juice
United Service Tomato Juice
Van Camp's Tomato Juice
Vincennes Tomato Juice
Vinco Tomato Juice
Weideman Boy Tomato Juice
Wegner Tomato Juice
White Birch Tomato Juice
Wilson Tomato Juice
W. N. Clark Tomato Juice

* The term "canned tomato juice" in this article refers to tomato juice distributed in either cans or bottles.

PRETTY PATTY'S PUZZLED
says Johnny Pineapple from Hawaii
"What's a girl to do with her first pineapple?" wonders sweet Patty of Honolulu. There's a fine drink of juice inside, but it's so much easier for mother to punch two holes in a blue and yellow can of Dole Pineapple Juice and fill tall cool glasses.
"And what's more," adds Johnny Pineapple, "Dole Pineapple Juice tastes natural and fresh. It's *pure pineapple juice. Nothing, not even sugar, has been added."
No wonder Patty likes it. You will, too. Why not try a glass today? It's a treat at any hour—a grand party drink—perfect at breakfast.
*Dole Pineapple Juice contains Vitamin A and is a good source of Vitamins B and C.
DOLE
PINEAPPLE JUICE
Copyright 1938, by Hawaiian Pineapple Co., Ltd.

Hawaiian Pineapple Co., Ltd., also packers of Dole Pineapple "Gems," Sliced, Crushed, Tidbits, and the new "Royal Spears." Honolulu, Hawaii, U. S. A.—Sales Offices: San Francisco, Calif.

method for canning tomato juice in the new revised canning bulletin of the Bureau of Home Economics (Farmers Bulletin No. 1762, Home Canning of Fruits, Vegetables and Meats), which is distributed by the U. S. Department of Agriculture.

Concentrated tomato juice preparations like catsup, cocktail sauces and tomato paste are not considered good sources of vitamin C and should not be depended on for this vitamin. Such preparations are all right as appetizers, but for vitamin C, consumers should stick to the canned tomato juice.

In purchasing canned tomato juice for the home, the homemaker has the choice of cans in several sizes. The most popular sizes are:

	Net Contents		
Can	Qt.	Pt.	Fluid Oz.
No. 1 Picnic	—	—	9½
211 Cylinder	—	—	12
300	—	—	13½
No. 1 Tall	—	—	15
303 Cylinder	—	1	3
No. 2	—	1	2
307 Special	—	1	7
No. 5	1	1	4
No. 10	3	—	—

The 1937 production figures show that 13,444,162 cases of canned tomato juice were packed, or approximately 54 ounces of tomato juice per capita.

It is best, however, to buy the size that is adequate for one meal since after the can is opened and the juice is exposed to the air, the vitamin C potency decreases.

When a housewife purchases those brands of canned tomato juice which carry the Council's seal of acceptance she can be assured that the product she buys is a wholesome food, properly prepared to preserve its nutritional value, and that the vitamin C potency is what one would expect to find in a high quality juice. This is an important point, because several years ago there were some brands of tomato juice on the market which contained practically no vitamin C. The method of canning had destroyed all the vitamin C present in the fresh tomato.

The acceptance seal of the Council on Foods means that the manufacturers submitted full information regarding the canning process and also provided suitable evidence that the vitamin C potency of the fresh tomato is largely retained. This seal also means that the manufacturers have agreed to restrict advertising claims to those that are acceptable to the Council.

[NOTE.—The value of canned sieved and chopped foods in infant feeding will be discussed next month in this department.]

By HARRIET MORGAN FYLER

TRY SERVING RAW SHREDDED CARROTS OR CABBAGE WITH HOT BOUILLON. THE VEGETABLES ARE CRISP AND SLIGHTLY CRUNCHY; THE PALATE IS PLEASED, AND THE NUTRITION REQUIREMENT IS SETTLED, AS NO VITAMINS WERE LOST IN COOKING.

Courtesy Woman's Home Companion

HOT SOUPS FOR COLD DAYS

NOW THAT WINTER is here, the Mock Turtle's song in Lewis Carroll's verse has a special timeliness. Warmth and nourishment are the virtues of soup. Even in summer, soup is an important part of the well rounded meal; in cold weather when one needs good, sustaining soup to fortify oneself against chill winds, it is an essential.

Not the least of the culinary arts is that of soup making. Ever since Henry IV's chef devised a way of simmering chickens in beef broth that so pleased the palate of Henry IV that he remarked, "I hope that day is not far off when all my subjects will have *poule-au-pot,*" a chicken in the soup kettle, expert chefs have devoted themselves to the task of giving body, flavor and richness to soups. From the kitchens of many races has come an endless variety of soups that serve the thrift of the housewife, please the taste of the epicure and provide wholesome food.

Certain soups that are used throughout the world remain definitely associated with the countries of their origin. Each country has its traditional soup. Onion soup is the soup of France. As the French chef makes it, it is of onions browned in butter and well seasoned beef broth, served with croutons and grated cheese. A recipe for onion soup that fits into the average program of the kitchenette with its gas or electric range is this one by George Rector:

Onion Soup

2 cans concentrated consommé
1 cupful water
6 medium sized onions
2 tablespoonfuls butter
½ teaspoonful salt
Cayenne pepper
½ teaspoonful paprika
1 teaspoonful Worcestershire sauce
2 hard rolls
Grated Swiss cheese

Heat the concentrated consommé with the water. Slice the onions thinly. Melt butter in a large saucepan; add the onions, and cook until almost brown. Don't burn them. If you stir the onions around they will cook more evenly. Add more butter to the onions if needed. Sea-

The cup that calms

Overtired bodies, frayed nerves—sleepless hours . . . have you ever experienced the soothing, gently nourishing effects of hot BOVRIL—made either with boiling water alone or with warm milk added? A teaspoonful of BOVRIL concentrate makes a delicious, warming cupful.

BOVRIL is kind to the stomach—a food beverage that is easily assimilated, hunger appeasing, satisfying. Famous for fifty years, it is the most widely known and largest selling beef-extract product in the world. 20 to 30 pounds of prime, lean beef are required to produce one pound of the extractives used in BOVRIL concentrate.

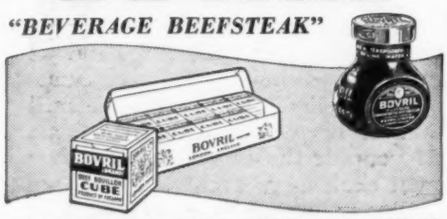
BOVRIL is good for everybody—grown-ups, children, elderly folks, invalids, convalescents. At drug and food stores, in jars for home, sickroom and hospital use.

AT FOUNTAINS, 10c A CUP—HOT

BOVRIL OF AMERICA, INC., Camden, N. J.

BOVRIL

"BEVERAGE BEEFSTEAK"



ALSO BOVRIL BEEF BOUILLON CUBES

son with the salt, a slight pinch of cayenne pepper, the paprika and Worcestershire sauce. Now add the stock, and simmer for a few minutes. Transfer the soup to an earthen soup casserole or a glass heatproof casserole. Slice the rolls crosswise and thinly, and toast the pieces. Then spread them right on top of the soup. Sprinkle liberally with grated Swiss cheese, and place in oven or under broiler flame to brown.

The soup of Russia is *borsch*, a sour cream soup of vegetables and meat. *Borsch* was a favorite with Russians of all classes before the Revolution and has lived on under the new regime; it has even survived in the land of the Nazis, where it is known as beet-root soup. The *borsch* is made from pork spareribs and red beets:

RUSSIAN BORSCH

1 pound spareribs
2 bunches beets
½ cupful chopped parsley
½ pint sour cream

Cook slowly in water for two or three hours the spareribs, beets sliced thin and the chopped parsley. Add a small amount of the soup to the sour cream, mixing slowly; then add this mixture to the *borsch*, just before serving.

The Italian favorite is *minestrone*. This soup is related to our vegetable soup, but it is distinguished from our vegetable soup by the addition of macaroni and a little white wine. It is served with a bowl of grated Parmesan cheese. This soup may be prepared as follows:

ITALIAN MINESTRONE

¾ cupful dried kidney beans
2 quarts beef stock
¼ pound bacon (not sliced)
½ cupful chopped onions
2 cupfuls chopped carrot
1 cupful chopped cabbage
½ small clove garlic
1 stalk celery
Salt
Pepper
1 cupful raw macaroni
½ cupful white wine

Soak the kidney beans overnight in cold water. Cook beans in the beef stock with the bacon, onions, carrots, cabbage, garlic and celery, salt and pepper to taste. Boil in a kettle with a snug fitting lid for 1½ hours; then add the raw macaroni, and cook for 45 minutes longer. When the bacon is very soft, take it out, cut it in ribbons, and put it back into the soup. Add the white wine just before serving.

Scotland has its cockie-leekie, a soup made of fowl and a profusion of leeks, and England its mutton broth and turtle soup. No London banquet is said to be complete without turtle soup served with proper ceremony. Much of the turtle meat goes into this soup when it is properly made, along with a reasonable amount of sherry. Prepared turtle soup, made in London, may be purchased in fancy grocery stores in this country. English mutton broth, rightly proportioned of lean meat, barley, leeks, carrots, celery, onions and water, is likely to please the palate of the most fastidious epicure.

America has no national soup; every section has its traditional favorite. New Englanders have clam chowder. This soup, varying somewhat in its components, finds approval on almost every New England board the year around. The best clam chowder is made of clam juice and soft clams. Potatoes, onions, bacon, chopped parsley and cream add substance to this great native dish. New Yorkers add tomato to give it color.

Maine fish chowder is made of cod or haddock. Kenneth Roberts in "Trending into Maine" (Little, Brown & Co.) gives his grandmother's recipe, for which he had a special passion:

"My grandmother used a good-sized haddock or cod. The fish was skinned, boned and cut into slices an inch wide and two inches long, or any other convenient size, and at the same time several dozen of the large round crackers sometimes known to New Englanders as common crackers or water biscuit were deposited in the milk pan in which remained the least amount of milk. A half dozen medium-sized potatoes and a half dozen medium-sized onions were then cut in slices, a pound of salt pork was carved into small cubes, and the pork, fish, onions and potatoes were placed in layers in a kettle. From the milk pan in which the crackers were soaking, enough milk was poured into the kettle to cover liberally the fish, pork, onions and potatoes, and the whole was then allowed to simmer for an hour. The moistened crackers, meanwhile, were placed in the bottom of a soup tureen; and at the end of the hour the completed

chowder was decanted from the kettle into the tureen."

In the South, soup usually means creole gumbo. Although many persons do not regard gumbo as a soup, the New Orleans gourmet so classifies it. Creole gumbo may be made of fish, flesh or fowl; but whatever the stock, the secret of success, according to one Southern cook, is the admixture of plenty of okra, bay leaves and powdered sassafras leaves.

The gumbo ritual consists of making a paste by browning a tablespoonful each of flour and lard. Sliced onions are added and browned. The meat in small pieces is put in and cooked fifteen minutes. Chopped green pepper, celery, okra, garlic, thyme, bay leaf, parsley and two quarts of warm water are added, and the dish is seasoned with salt, black pepper and cayenne. The pot—a deep iron one—is covered and kept over a slow fire about two hours, and the gumbo is served with boiled rice. Seafood gumbo combinations include crabs, shrimp and oysters; meat combinations include chicken, veal and ham.

Pennsylvanians are proud of their pepperpot soup made of highly spiced chicken stock into which are introduced tripe and vegetables. The Middle West has its corn chowder made of golden kernels of corn, diced potatoes, onions browned in bacon fat, and milk. Californians have their abalone chowder. This is truly a western dish, for abalone, a mollusk, is found only along the Pacific coast, particularly in the vicinity of Monterey. Abalone chowder is prepared thus:

Abalone Chowder

2 abalones
4 cupfuls salted water
4 slices bacon
2 onions
2 large potatoes
Chopped parsley
1 pint fresh whole milk
Butter
4 crackers

Trim off all the dark parts of the abalone, leaving just pieces of white solid flesh. Pound this on a solid foundation with a wooden mallet until it is soft but not broken. Cook it in salted water until tender—about an hour. Take out, grind through the food chopper, and put back into the liquid. Dice the bacon, and fry crisp. Brown the onions, minced, in the fat, and add to the abalone liquid. Peel and cube the potatoes, and add them with some chopped parsley. If the liquid has boiled low, add enough more water to cook the potatoes. Just before serving the chowder add the milk, a generous piece of butter and the crackers crushed fine; heat up quickly, and serve at once.

If there is one soup that is popular in all sections of America, it is vegetable soup. In an earlier day vegetable soup was the dinner that was served at least once a week in 90 per cent of all American homes from the cottage of the pioneer to the palace of the profiteer. Hot, smooth, unctuous and thick with vegetables and meat, it was "eaten" with a spoon.

This is the soup Mrs. Lutes eulogizes in her book, "The Country Kitchen." As it was made in her humble home in southern Michigan this, Mrs. Lutes thinks, was the soup of which the Mock Turtle sang:

"Soo-oop of the e-e-evening,
Beautiful, beautiful Soup!"

The ideal vegetable soup, according to Mrs. Lutes, must be made with a shank bone—the shank of a "beef critter." "For a shank bone is the only bone of any consequence that has marrow in it, and it is the marrow that gives that peculiar richness, body, and flavor which a true vegetable soup should have." The shank bone, cracked in three places, is put in a good sized kettle and entirely covered with water. It is slowly cooked over a low heat until the meat falls from the bone, adding water as necessary to keep the amount of stock about the same. An hour and a half before dinner, 1 quart of chopped onions, potatoes, carrots and celery in reasonable proportions, but not stinting on the onions, and 1 parsnip together with 1 cupful of shredded cabbage and 1 cupful of washed barley are put into the kettle. When the vegetables and barley are cooked, the soup is seasoned with salt and pepper to taste and ladled into soup plates of generous size.

The French have a similar soup which they call *pot-au-feu*. The literal meaning of *pot-au-feu* is pot on the fire, but it really is a dish of broth, beef and vegetables boiled together in a pot. The following recipe for *pot-au-feu* tickles alike the nostril, the palate and the eye.

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POT-AU-FEU

2 pounds very lean beef
1 pound beef bones
4 quarts cold water
2 tablespoonfuls salt
1 bay leaf
Thyme
1 pound carrots
1 pound turnips
1 pound leeks
Garlic

The beef may be of the cheapest cut. Have the bones clipped with a cleaver so that they may more freely yield their store of savory juices. Dissolve salt in the water; add the beef, bones, bay leaf and pinch of thyme, and simmer these together for three hours in a kettle with a snug fitting lid. At the end of three hours, add well scraped carrots, turnips and leeks, together with a little garlic, and let simmer for another hour. It is now ready to serve.

Your eye will rejoice in the green of the leek, the gold of the carrot and the white of the turnip, all floating in the odorous amber fluid whose surface is speckled with gleaming "eyes" of fat from the bones. Taste it, and notice how smoothly the flavor of all the ingredients has blended into a harmonious whole. Take a serving, and eat plenty of crisp bread with it.

The cream soups have quite a following at this season. Persons who are partial to this type of soup like it thick and creamy. Tomato soup and varieties flavored with cauliflower, asparagus, celery, mushroom, watercress and spinach are popular. Cream soups, though delicate in flavor, are substantial in nutritional value. They are bound with flour and egg yolk and enriched with butter and scalded cream.

Consommés represent another class of soup. Many persons who know only the insipid, watery concoctions, served lukewarm in some restaurants, are disdainful of consommé. But George Rector defends it as "le grand bouillon."

The best consommé must be made from 2 parts of beef and 1 part of veal, first boiled down for stock. The stock is flavored with spice, then cleared with egg white. It should be a pale sherry color, and it should be served piping hot.

Although canned soups are widely used in the United States and are notable for their diversity, the housewife with a flair for cooking may prefer to make her own. She brings to the operation a never flagging spirit of adventure. It is from her experiments with left-overs that many of the world's most famous soups have been derived.

The point of departure in the concoction of all homemade soups is a meat stock—the broth obtained by boiling a ham bone, a beef shank or a tough old fowl. But from this point on, the procedure varies infinitely according to the inventiveness of the housewife.

BEATING TROUBLE TO THE PUNCH

(Continued from page 52)

Hospital" meant that whatever it was, he was already in action. If emergency required, it comforted me the next few minutes to know he understood the completeness of his advance authority to act in any needed way.

My long distance telephone connection was made with him in the operating room. He scolded me first for having called back more quickly than the mileage made safe.

The little "touch" of indigestion that had reminded us of our intended annual checking over had developed with my wife into an acute attack that had caught her at work in our garden. My mother had telephoned Rufus, and Rufus had been to my home, had taken her to the hospital in his own car, had engaged the surgeon and was ready to operate.

He first told me my wife had insisted he ask that I either take the train back or at least promise to drive carefully. Beyond that he "hoped" it was appendicitis. Pains had been severe, and he didn't like their location. Didn't I agree that the incision should be large enough to allow for thorough exploration? "Dr. Blank will do the operation, you know. We are ready to start now."

"Is Dr. Blank the man you wanted?" I asked.

"Oh, yes, indeed, he's chief surgeon here."

"Just as long as you have done whatever you want to for her, Doc, go right ahead."

"Well, we were just getting ready to begin," he called back cheerily. "Fact is, your wife is already here on the table. Would you like to

say 'hello' to her before we start the ether?"

It was good to hear my wife. There was some natural excitement in her voice but no fear or uncertainty. She had met and liked the surgeon. The only thing she seemed worried about was that I would drive recklessly on the way back. And so I told her good night, checking briefly with Rufus on the time for a postoperative call and promising to take the train from its Michigan terminal instead of driving all the way to Chicago.

Courage on my wife's part? Of course she had courage. She has it naturally, *and confidence breeds courage.* Don't forget, she too knew Dr. Rufus. The only emergency he faced was the technical emergency of the operation, for which he had secured the able man who functioned under his responsibility on this end. There was no emergency in getting acquainted with a strange, frightened patient—and no ordeal of this character on the patient's part.

An hour and a quarter later my telephone call from the railroad terminal found the job done and Dr. Rufus happy. A bad appendix —and far out of position near the spine; hence the large incision and the look-around. Incidentally, the general interior was in splendid shape. He would probably be seeing me next day.

But as those things go, visiting the hospital early in the morning and late in the evening as my business required, I never saw him during the entire progress of my wife's recovery. He was there each day, and we passed our messages back and forth through the nurses and then through my wife herself. After all, he's a busy man. I don't need to waste his time with unnecessary questions.

Again his bill was less than it might well have been.

This year, Rufus has been ill. He spent the past few months recovering in the South. His energies have been a little too heavy for an aging heart. But he's home now.

In his absence, either the children's doctor or Dr. Rufus' secretary could serve to place me in the proper professional hands for any needed medical thing. I had a note from him the other day. It thanked me for the times I had telephoned his office to inquire about his progress. Doctors have illnesses too.

(Continued on page 88)

TOAST

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QUESTIONS AND *Answers*

If you have a question relating to health, write to "Questions and Answers," HYGEIA, enclosing a three-cent stamp. Questions are submitted to recognized authorities in the several branches of medicine. Diagnoses in individual cases are not attempted nor is treatment prescribed. Anonymous letters are ignored.

Ingrown Hairs

To the Editor:—Is there any treatment or remedy for ingrown hairs on the face? Some of these hairs grow along the skin or just beneath the skin but are visible as a black line. Others grow under the skin and cause a small bump or pimple. Should these hairs be pulled out? Will another hair come out the same way when an ingrown hair is pulled? W. D. N., Minnesota.

Answer.—Skin of the bearded region should be kept soft and smooth by the use of a soothing cream. The beard should be well lathered before shaving, and a very keen razor "once over" should be employed. When the "ingrowing hairs" develop they should be extracted as early as possible, and tincture of iodine should be applied. A new hair usually grows from the same follicle.

Home Canning of Foods

To the Editor:—If beans, corn and other vegetables are canned with a little vinegar, will they be absolutely safe from botulism? If so, how much vinegar should be used per quart, even though it might be weak? Does a pressure cooker make home canned vegetables absolutely safe? Is it because of botulism that meat should be boiled fifteen or twenty minutes after removal from the fruit jar? Z. S., Minnesota.

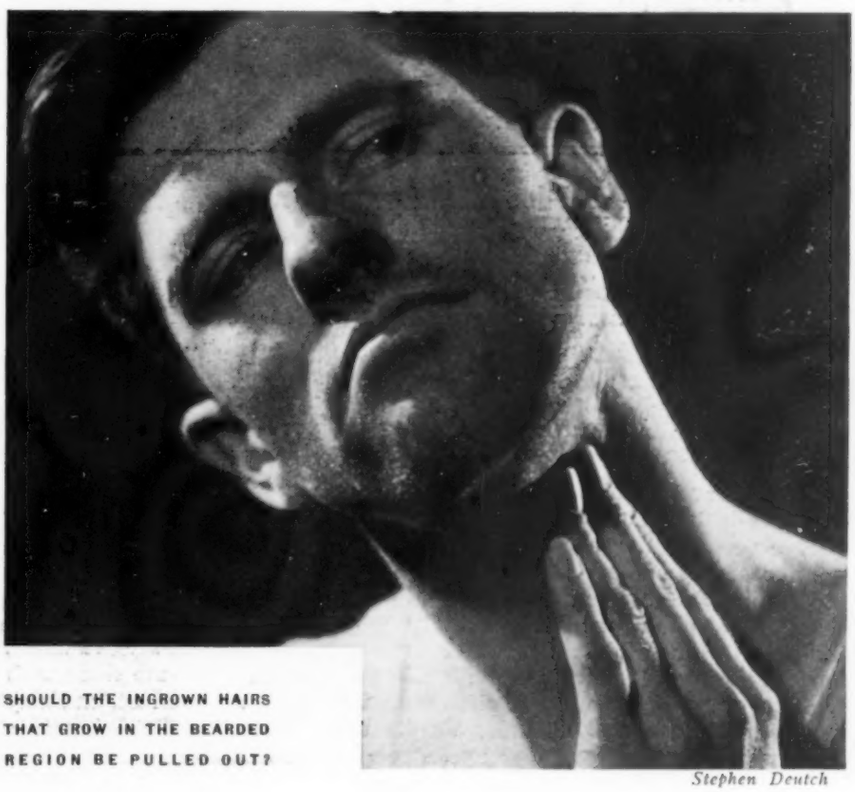
Answer.—The addition of vinegar to nonacid vegetables was onee suggested in order to permit the use of boiling water processes for such foods canned in the home. The addition of vinegar to nonacid foods in order that a boiling water process may give complete protection against botulism is not to be recommended because the average home canner lacks facilities to determine whether the food has been sufficiently acidified. To acidify nonacid foods properly so that boiling water processes could be safely used will require the addition of large amounts of vinegar which will radically alter the natural flavor characteristics of the foods, even though the vinegar be sweetened.

Home canners desiring to pack the common nonacid vegetables should obtain a copy of the U. S. Department of Agriculture Farmers Bulletin No. 1762, "Home Canning of Fruits, Vegetables and Meats," U. S. Govt. Printing Office, Washington, D. C., (price 5 cents), which describes the equipment, precautions and procedures required to can nonacid foods in the home. As described in this bulletin, a properly equipped and properly operated pressure cooker is absolutely necessary for home canning of foods of the nonacid type.

To guard against danger to health arising from faulty home-canning technic, some authorities have recommended that all nonacid home-canned foods—meats, vegetables and fish—be thoroughly heated before tasting, to destroy any toxin produced by clostridium botulinum which might be present. These authorities differ somewhat as to the time of heating necessary to destroy this toxin, but it has been commonly recommended that all parts of the food be maintained at boiling temperature over a direct flame for at least 20 minutes. However, it is advisable to destroy promptly and without tasting any nonacid home-canned food which exhibits any abnormality in odor, consistency or general appearance.

Syphilis in a Household Employee

To the Editor:—I have in my employ a houseworker about 38 years old. A Wassermann blood test proved to be positive. She acquired this condition as a young girl. Having three small children of my own and not wanting to take any chances, I was willing to discharge her, although she has been



SHOULD THE INGROWN HAIRS THAT GROW IN THE BEARDED REGION BE PULLED OUT?

Stephen Deutch

in my employ for some time. My family physician suggested that as long as she takes treatments for this condition, it would be safe to keep her in our household. Not wanting to take unnecessary chances, I would appreciate your opinion on this matter.

S. A., New York.

Answer.—If it is true that this girl is now 38 and acquired her syphilis when she was a young girl, there is nothing to fear concerning transfer of the disease to the children from the ordinary contacts in a household. If her blood were to be used for a transfusion, the situation would be somewhat different, but the older a syphilis gets, the less danger there is of its being transferred to anybody through ordinary contacts.

It would be well to have the woman examined carefully and an examination of the spinal fluid done. That may explain the positive reaction on her blood. If she takes treatment, certainly there would not be the slightest danger to the children, and at the same time it would be a service to her. How much treatment will be necessary is difficult to say, since no mention is made of how much treatment she has already had. Ordinarily, the treatment of syphilis is by different preparations containing either arsenic or bismuth. The usual course of treatment during the first year is once a week; during the second and third years, treatment must be adjusted to the individual needs of the patient.

Sensitivity from Nail Polish

To the Editor:—In what way could sensitivity to nail polish and nail polish remover manifest itself?

S. L., Pennsylvania.

Answer.—Sensitivity to nail polish is usually indicated by the presence of an itching skin rash. This need not appear on the fingers, although the nails may become roughened and thickened. Often such a rash first shows itself on the face, especially the eyelids, from transference by contact of the material with the face and especially the eyelids. The chance of absorbtion from the finger nails themselves is much less than from contact with the lips or with the face. Polish remover is a very unlikely cause of sensitivity.

Muscular Development

To the Editor:—Does overdevelopment of the muscles, such as possessed by weight lifters, shorten the span of life? If so, to what diseases are such "strong men" especially susceptible? On the other hand, is it true that gradual development of the muscles by progressive lifting of weights brings with it greater organic power and vitality? Does it lengthen life?

S. L. T., California.

Answer.—A physical educator at a large university writes:

"The muscles of the human body seem to adapt themselves very cleverly to the demands which are made upon them. 'Function makes structure' is a very old principle of physiology. Exercise, taken in reasonable amounts increases the size of muscle tissue, as well as its strength, provided adequate periods of rest and sufficient nutrition are furnished. Excessive development of muscle such as results from weight lifting is neither desirable nor necessary for health. Heavy straining movements should be avoided; no muscle should be taxed to its utmost possibility, as is sometimes done in weight lifting. All exercise should be well within the capacity of the performer, otherwise harmful results may follow; muscle rupture and excessive circulatory strain may be brought about. Unless a man's occupation demands unusual muscular strength, it is not necessary to have 'ditch digger's' muscles. The professional strong man may need his big muscles in his business; so may the manual laborer. The ordinary professional or business man has no need of excessive muscular development, either for health, or in his daily life; in fact, it may be a handicap to him.

"Exercises are commonly divided into those of strength, speed, and endurance. Exercises of strength are commonly done slowly with strong effort, and tend to produce muscles of large size but slow action. Exercises of speed produce quickness and rapid nervous and muscular response. Exercises of endurance are valuable, largely because they are done with moderate speed and effort, and may be long continued. Walking is a good example. Pleasurable exercises are always most valuable; one would hardly say that weight lifting was a joyful kind of exercise. It is obvious that a form of exercise suitable for one man may be very injurious to another; that which is beneficial in youth may be disastrous in advanced age.

"In general, it may be said that the particular exercise of weight lifting does not of itself produce greater organic power and vitality, and does not lengthen life."

A physiologist at the medical school of a large university says:

"There are no records of which we are aware that have to do with weight lifters and their length of life. It is known, however, that longshoremen show a high percentage of heart accidents. This might well be attributed to the heavy loads they bear. There is considerable information concerning length of life and various forms of athletics. In a study of 3,424 English cricketers the results were highly favorable as to longevity. Oarsmen at Oxford, Cambridge and Yale have been shown to live the usual length of life. The Carnegie Foundation Bulletin No. 24, 1929, reports that college athletes live as long as the average collegian. On the other hand, Beyer in 1911 compared 580 non-athletes with 622 athletes in the Navy, and found the death rate higher for the athletes. The question cannot be settled at the present time. There is little evidence, however, that length of life is much influenced by any progressive form of exercise. Probably the best advice is to be moderate."

Memory

To the Editor:—Is it possible for a man at the age of 50 to remember incidents that happened in his life at the age of 2 or 3 years?

A. K., Pennsylvania.

Answer.—It is unlikely that a man at age 50 remembers consciously incidents that happened at the age of 2 or 3 years. However, certain frightening experiences occurring early in childhood may be repressed and unconsciously influence behavior and affect the personality. Only too often, people believe they remember some incidents which occurred at 2 or 3 years of life, when in reality they may be repeating only what parents or relatives have described.

SCHOOL AND HEALTH (Continued from page 72)

school, is not always available. The best practice I have observed is in allowing no member of the faculty to be in charge of such services unless that person has passed the Red Cross examination. A principal recently told me that placing first aid under capable directions had broken up the practice of some teachers helping out their pupils with pills for the relief of headaches.

While the acquiring of some skills in the teaching of first aid is of importance, the development of desirable habits and attitudes is of equal importance. An enthusiastic instructor showed me the following list of first aid rules which her class had made:

1. Never become excited when an accident occurs. Keep calm.
2. When an accident of any kind occurs, call an older person at once.
3. Never neglect any injury, no matter how slight.
4. Always be ready to do what you can to help some one who has been injured. Do not run away.
5. Never take anything out of the medicine chest at home without consulting your mother or father.

A school nurse assigned for high school instruction in first aid told me she made a great point to emphasize that such a course prepared the layman to render first aid only and that he should know when to call a doctor.

These observations show in part some of the practices now found in the teaching of this important aspect of the health education curriculum. First aid offers an opportunity of a new approach to physiology, and certainly no other phase of the health education curriculum lends itself so well to the activity method. The idea of service to others is always appealing to youth.

Health Teaching Based on Individual Needs

By GERTRUDE S. BROWN

The kind of health teaching that counts is built on the teacher's first-hand knowledge of the health needs of individual children. The cases referred to in this article were handled by Miss Gertrude Brown, teacher in the Thirty-Second Street School, Los Angeles, which serves the University of Southern California as a training school. Her experience should be suggestive to all grade teachers.

THE wide awake teacher seeks to promote healthful living in her classroom. She sees in her lively, enthusiastic boys and girls a challenging responsibility as she strives to give each child encouragement, sympathetic understanding, guidance and a happy school atmosphere in which to live.

The teacher of today recognizes that healthful living of her pupils depends much on her understanding and guidance based on their individual differences and needs. She knows that all children cannot be poured into one standardized mold, if they are to achieve happy and healthful citizenship. She realizes that effective teaching must take cognizance of children's varying mental and physical equipment as well as their varying home environments. Hence the forward looking teacher combines intelligent appreciation and understanding of a child's individual differences. She expects of him what his best self can do.

Intelligent guidance to achieve healthful living in the classroom can be greatly helped by planning a definite get-acquainted period of several weeks early in the semester. At this time the teacher will be particularly observing of children's different mannerisms, facial expressions, posture, health problems and interest in curricular and extra-curricular activities. She will note the social or antisocial tendencies of her pupils at play periods and during the noon hour. She will take stock of attitudes, of cooperation, of dependability and of cleanliness. She will make opportunities at recess, noon and after school for children to help her, "drawing them out" as she converses with them about their homes, hobbies, chums and likes and dislikes. Thus, teacher and pupil really get acquainted.

John lingers to arrange books one evening. She compliments him about his willingness to help. He is proud and feels important. At once, he thinks of her as "a regular guy." She can always call on him when she needs any extra help.

Incidentally in their conversation the teacher learns that John's mother died several years ago of tuberculosis and that his father doesn't work steadily because he isn't well. Mentally she notes it will pay to watch young John for the possible development of tuberculosis symptoms. She'll have the school nurse keep special and frequent tab on this lad.

Healthful guidance can be more intelligent and effective if the teacher can make acquaintance with the parents and the home conditions. Scrawny Mary loves to draw. She seems unusually bright. However, except for art her lessons are done half-heartedly and handed in half done. The teacher hears her remark proudly to a group of girls, "I'd rather draw than eat." Usually, pencil and paper accompany Mary at noon as she goes off with one other girl to one side of a bigger group to eat her lunch. She hungrily gobbles one sandwich and then with a shrug of her shoulders nonchalantly declares, "You can eat any old time. I'd rather draw." But there is no more to eat in her lunch sack.

Observing Mary's actions for two or three days, the teacher feels Mary is wearing a cover-up attitude. Probably Mary, who appears undernourished, comes from a home where groceries are scarce. A home visit may tell. The school nurse can help. Mary must not go on this way. Rickets and ill health will seek her out unless her diet is supplemented.

The healthful living program in the schoolroom will recognize the value and importance of good health habits. The teacher will detect faulty eye habits and labored study. Some of these may be of long standing so that the child himself has become so accustomed to his handicap that he is unaware it exists.

(Continued on next page)

SEX EDUCATION

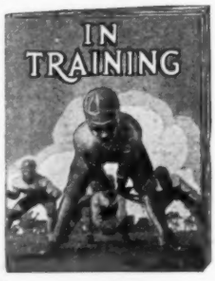
Booklets by
THURMAN B. RICE, M.D.
Modern without sacrificing fundamentals.
Frank, but not sensational. Illustrated.

For Boys and Girls of Ten

How life comes from life—How flowers are born—Male and female functions in fish, frogs, turtles, birds, calves, colts, kittens and human beings—Simple facts about sex hygiene. **36 pages**

For Boys of High School Age

How sex influences every minute of life—Clean sports—The fun of hobbies—The miracle of Life—Human mating—Purposes, physiology and hygiene of sex—How marriage protects the race. **48 pages**



For Girls of High School Age

Motherhood, the great career—How reproductive organs function—Menstruation, its physiology and hygiene—Athletics for girls—True feminine attractiveness—Going out with boys—Marriage. **38 pages**

For Both Sexes of College Age

Training for happy home life—Sex feeling of male versus female—Control: a mutual responsibility—Premarital understandings—Planning for parenthood—Ideal honeymoon—Two purposes of sex. **44 pages**

For Persons of College Age or Older

Prevalence of venereal diseases—Effects on individual and on society—Syphilis and its transmission—Protective measures—Symptoms and stages—Gonorrhea and other diseases. **40 pages**

Heavy paper covers *25 cents per copy*
Complete set of five in special filing case, $1.00

AMERICAN MEDICAL ASSOCIATION
535 North Dearborn Street Chicago

Big Charles, retarded two years in his work, reaches the sixth grade labeled by his class as "kinda dumb." Never a disciplinary problem, he assumes awkward positions when reading, squints a great deal and fidgets nervously. When questioned about his eyes, he assures the teacher they are "O. K.," that he has "always squinted." Not satisfied, the teacher gets the consent of his parents for a thorough examination of the boy's eyes by the school doctor. The case is pronounced extremely serious. The child is well on the road to blindness with but 30 per cent of his vision unimpaired. Glasses are obtained by the shocked parents, and the boy awakens miraculously to a new world. His so-called "dumbness" vanishes overnight; and at the end of the term, Charles leads the class in his work, thanks to the alert observation and friendly interest of his teacher.

Sloppy posture may be due to lazy habits or be deeply rooted to abnormal physical conditions. Unusual fatigue seems to cause Ronald's poor posture. His teacher notes other danger signals. He dawdles at his work and seems underweight, though the teacher knows he comes from a middle-class home where he gets plenty of good food. Dark circles play under his eyes. He has a constant run of colds. His breathing is labored. His attitudes are those of indifference and lack of interest. Maladjustments seem to have him cornered. The teacher thinks it may be due to bad adenoids and enlarged tonsils.

A visit is planned to Ronald's home. His parents are consulted, but they assure her that the boy is just lazy. They promise him a good spanking, but the teacher feels that isn't the solution. Finally she persuades the parents to permit the boy to have a medical examination by the school doctor. The doctor finds "the worst looking adenoids I have ever seen." The boy's recovery is slow because of his run-down condition; but he soon catches up and even finishes the term leading his class, happy, wide awake and appreciative of improved health and ability.

Most teachers of today have thrown to the scrap heap the impersonal dishing out of dry formal subject matter. They make their teaching vital, alive and practical. They combine teaching with enthusiasm for and interest in young people and their personal problems. The alert teacher who recognizes these vital individual capacities, needs and differences has, as her major quest and purpose in teaching, the maximum of health and happiness for each child. She seeks for him happiness and healthful living through social, physical and economic adjustment.

BEATING TROUBLE TO THE PUNCH

(Continued from page 83)

Like any one else, they appreciate signs of interest in their progress and their recovery.

Now that he's back on the job, I want to call on Dr. Rufus. He ought to look me over, and I want to meet his assistant.

I count all these things to date as dividends on my two original investments of $10.

In the city, any one can fortify his family with a right medical relationship with little difficulty. Take the largest, reputedly finest hospital in the city, and get the list of its medical staff. Make an office appointment with one of its most famous members. Tell him simply and honestly where and how you live and that you only want a man as your general, personal physician to look over your family and yourself and to act as your personal medical adviser henceforth. Then when he suggests in your part of the city Dr. "A" or Dr. "B" or possibly Dr. "C," make note of all those names and keep them. But call first on Dr. "A," or better, call him to your home at his convenience.

If he is a young man, expect him to be somewhat enthusiastic about his visit. If he is an elderly physician, give him a few minutes to recover from the shock of meeting an intelligent layman.

In the small town—the very small town—your procedure is slightly different. Your current errors are also probably more numerous.

Don't make the mistake of confusing the professional and community relationships with your small town doctor. Socially, do what you can to protect the man from gossipy, heckling questions on medical subjects. Call him to your home professionally, and make your family acquainted with him in this character. Choose the best that you

(Continued on page 91)

BOOKS ON HEALTH

[NOTE.—Books reviewed or mentioned in this section, other than those published by the American Medical Association, should be ordered from booksellers or direct from the publishers. They may not be ordered through HYGEIA or the American Medical Association. Publishers' addresses will be found at the end of the section.]

The Public Health Nurse

Cloth. Pp. 54. New York: Department of Philanthropic Information, Central Hanover Bank and Trust Company, 1937.

HERE is a new and valuable idea in health education. This handsomely printed brochure is privately published and is not for sale. It is intended to serve customers of the bank and others, who may be contemplating the disposal of funds by gift or by bequest to worthy charitable or civic purposes. It is the second in a series, of which the first dealt with "The Fine Arts in Philanthropy." The recognition by a leading financial institution of public health as a fertile and worthy field for philanthropy is interesting and gratifying. The publication of this volume by a large bank and trust company confirms the claims long advanced for public health; namely, that it is purchasable, that it is worth what it costs and that money is essential to its continued progress. A bank and trust company, in thus publishing the facts about one phase of public health work, does a service to its customers and at the same time advances public health. It is hoped that other phases of public health besides public health nursing will not be overlooked as further numbers in this useful and interesting series are developed. Research, medical education, training of public health personnel other than nurses and other phases of public health offer equally important fields for philanthropy.

The brochure itself offers the prospective giver all the information, from authentic sources, that he could possibly wish to have about prospective recipients of gifts or bequests, from historical origin and development to modern status, trends and costs. Especially important is the closing assurance that money set aside for public health nursing will not become a frozen fund irrevocably dedicated to outmoded purposes. The bank generously offers this book, in limited quantity of course, to any, whether customers or not, who contemplate a charitable disposal of funds. If there were more such books from such sources, we should not now be treated to the spectacle of persons supposedly intelligent and well informed, giving or leaving their money to the antivivisectionists to be used in perpetuity for the hampering of medical progress or to so-called foundations dedicated to the principle that more and better medical care for the poor can be achieved by cheapening the services and/or adding to them the cost of bureaucratic lay control.

W. W. BAUER, M.D.

Psychology in Everyday Life

By Walter C. Varnum. Price, $2.75. Pp. 444. Illustrated. New York: McGraw-Hill Book Company, Inc., 1938.

THE dull, stupid, impracticable psychology textbooks of the past are giving way to bright, entertaining, readable and teachable volumes. As proof of this we have this attractive text with fascinating illustrations, excellent print and challenging problems. Some of the chapter headings are "The Psychology of Learning," "How to Study Effectively," "The Use and Abuse of Emotions" and "How to Improve Your Personality." Tests for the student follow each chapter. Throughout the book great stress is put on problems of personal adjustment.

J. MACE ANDRESS.

Safety and Health of the School Child

Pamphlet No. 75. Pp. 29. Washington, D.C.: Office of Education, 1937.

DOES your school building provide for the safety of its pupils? Are they learning the art of healthful living? These are pertinent questions which every school should be able to answer in the affirmative if health and safety are to be counted as first objectives in education. It is possible to answer these questions satisfactorily in a short time, to discover the strength and weaknesses of your health program and thus know where to make improvements.

The first thing for the teacher or a group of teachers to do is to get a copy of this self survey of school conditions and activities. Then answer each question. Put a red check mark after each question which must be answered unsatisfactorily. When you have finished, these red marks will stick out like a sore thumb and point out specific needs. Such knowledge is a first step in planning for a health and safety program.

J. M. A.

The Student Thinks It Through

By Everett V. Perkins. Price, 36 cents. Pp. 89. Boston: Ginn & Co., 1937.

MENTAL hygiene in the guise of character education is playing an increasing role in education. Educators have come to the realization that it profits nobody to acquire knowledge and gain skill without growth in ideals and standards. In the past, educators have had faith that their general instruction functioned in character development. Everett V. Perkins, principal of Cony High School, Augusta, Maine, in company with many other progressive educators questions this philosophy. He believes that high school students should learn how to think about their problems, and out of his experience he has written "The Student Thinks It Through." Among the titles of these case studies are The Joker, A Poor Loser, Up-to-date Barbara, and Too Much Success. Following each case there is a number of questions to stimulate discussion. At the end of the discussion, students are expected to vote by secret ballot on questions submitted. Mr. Perkins' book should be welcomed by high schools. J. M. A.

Christianity and Sex

By Richard C. Cabot, M.D. Cloth. Price, $1. Pp. 78. New York: Macmillan Company, 1937.

IN THIS worthwhile book the author brings out that the whole problem of sex can be regulated by the Christian by being loyal to the ideals that Christ set down in His teachings and life.

Conventional morality may be somewhat shocked when the author points out in his first chapter that chastity based on fear is unwholesome because it is founded on a level too low for the Christian. The author stresses that the mere teaching of sex facts cannot be considered an antidote for sexual experimentation. He refers to medical students and nurses as two outstanding examples of persons in possession of the true facts and true knowledge; yet the morals of these two groups are not outstandingly higher than those of uninformed persons. The author argues that chastity is the reaction of the personality to its environment and claims that one cannot be moral in some things and immoral in others. Such a state of affairs would cause dangerous explosions within that person. Dr. Cabot suggests that the intelligent person should be familiar with those facts that are likely to cause explosions; by intelligently avoiding them, he can evade a blow-up. This may be brought about by keeping away from those things that excite and by repressing certain desires and controlling the imagination through concentration. The author minimizes, if he does not actually laugh at, so-called bad effects of repression.

Dr. Cabot develops the idea that each person's conduct affects all other individuals and that all persons should live "by the best light." He defines the "best light" as that which will develop the highest type of personality for the greatest number of people.

The book is well worth reading. It is not argumentative but tends to persuade the reader into accepting the author's statements.

PAUL A. TESCHNER, M.D.

A Laboratory Manual in Health Education for Elementary Schools

By Elma Rood. Price, $2.50. Pp. 143. Madison College, Tennessee: Rural Press, 1937.

THE author of this most helpful manual, a most progressive health educator, is director of public health nursing education, University of Kentucky. She believes that every classroom teacher should build her own health education program on the basis of the actual needs of her pupils. The manual has been worked out with teachers in service and is admirably adapted for the training of teachers at work. It suggests in a concrete way just how the teacher may go about discovering health needs and the formulation of a program for their solution. Every supervisor of health programs will want to see this book. It will also be valuable for individual teachers. J. M. A.

Free Speech—The Stammerer's Right

By Mabel Farrington Gifford. Cloth. Price, $2. Pp. 150. San Francisco: Thomson Printing and Publishing Service, 1938.

IN THIS book the author attempts to give the speech sufferer an insight into the psychology of his problem as well as a variety of hygienic and therapeutic measures designed to bring him relief. The use of the word *stammerer* in the title is unfortunate, since it merely revives an old discussion and since most speech therapeutists are now generally agreed on the term *stuttering* to designate the disorder discussed in this book.

The book's principal recommendation is the author's fluent style, which is indicative of the ease with which she disposes, in these few pages, of a complicated problem. With amazing facility, she passes from the simple to the complex and back to the simple again—a cycle repeated several times throughout the book.

The author concurs in the idea generally accepted among speech therapeutists that the stutterer's problem is one of personality maladjustment, but much of her material contradicts her own premise. While she states that her purpose is to "give you proof that stammering is not primarily a speech problem," the title of the second chapter, "Conquering Consonants," as well as the material in this chapter is definitely contradictory. Almost half the book is devoted to a variety of drills and speech exercises; yet in the fifth chapter the author informs the reader that "speech drills will only emphasize your dread of speaking."

"For some reason," she tells us, "you have built up a pattern of stammering. Therefore, change the pattern." This sounds extremely simple, until one attempts to put it into practice. Why not find the reason for the stuttering, since that necessarily determines the pattern? But "the 'why' of stammering, like most of the important 'whys' of life, remains a mystery," she tells us, and thus easily disposes of the stutterer without the necessity of considering his neuropathic diathesis or his psychobiology.

There is no doubt that the author is sincere in her special line of endeavor, and the reviewer does not question the validity of her claims. He is concerned mainly with the flagrant superficiality with which she disposes of an extremely complex problem and with her ready acceptance of the theories enunciated by Adler, Freud, Watson, Steckel, Dunlap et al without seeming to realize their many inherent contradictions.

Moreover, her method of therapy does not stem from any of these theories. For instance, she premises her treatment regimen on principles of mental hygiene. It seems strange, therefore, that she should resort to autosuggestion—a method that is avoided by mental hygienists and workers in child guidance—as the mainstay of her treatment. Yet throughout the book the author stresses this form of suggestion, and in the fifth chapter hopefully states, "I know that once you learn how to use it, you can go a long way alone." The reviewer wishes that he could be equally optimistic.

P. B. M.

Principles and Practice of Medical Nursing

By Victor Knapp, M.D. Cloth. Price, $3. Pp. 366. New York: G. P. Putnam's Sons, 1938.

THIS book, based on a series of lectures given by the author to first-year students of nursing, has been planned "to give the nurse who is just beginning her education a good groundwork in those fundamentals of the practice of medicine which she must learn to become a proficient member of her profession."

As an elementary textbook, it might be regarded almost as an outline rather than as the substance of a course. The author explains in the introduction that "to emphasize the limited knowledge of medicine that is required of a nurse, attention is called to the fact that where a sentence, a paragraph, or a page is given over to some phase of the subject in this book, the same subject may require a chapter or chapters or even a volume for its adequate exposition for the doctor."

In a condensation that reduces discussion to its briefest terms, more than two hundred disease entities are considered, with definitions and perfunctory comments on etiology, symptoms, diagnosis, treatment, prevention, tests, complications and prognosis, providing a fleeting and superficial glance into the problems which will confront the nurse. LEOLA J. HARRIS.

Publications of Office of Education

1910-1936, Including Those of the Former Federal Board for Vocational Education for 1917-1933. Bulletin, 1937, No. 22. Pp. 158. Washington, D. C.: United States Department of the Interior, Office of Education.

THIS listing gives a complete bibliography of the publications of the United States Office of Education and the former Federal Board for Vocational Education. The Office of Education issued its last complete list in 1910; the Vocational Board never issued such a list. This listing gives titles, with author and subject index to facilitate the finding of material wanted. Topics include home economics, health education, gardening, home education, kindergarten, community centers, library subjects and many others related to education, including the annual reports of the United States Commissioner of Education. It should be useful to teachers, health officials and students. It is exhaustively indexed and cross indexed for easy reference. The type is small and closely set, but perhaps this was necessary in order to keep the material within practical page limitations. W. W. B.

PUBLISHERS' ADDRESSES

The following list contains the addresses of publishers whose books are reviewed in this section:

Central Hanover Bank and Trust Company, 70 Broadway, New York City.

McGraw-Hill Book Company, 330 W. 42nd St., New York City.

Ginn & Co., 15 Ashburton Place, Boston.

The Macmillan Company, 60 Fifth Ave., New York City.

Thomson Printing and Publishing Service, 825 Harrison, San Francisco.

G. P. Putnam's Sons, 2-6 W. 45th St., New York City.

BEATING TROUBLE TO THE PUNCH

(Continued from page 88)

can; tell him you ask only for his personal aid in getting whatever added skill your family may need at any time without prejudice in any way to his own position with you. Tell him that all you demand is honesty.

Then give him honesty in exchange. When you have both recovered from the reciprocal shock of this meeting, you will have a better doctor than you "had" before, and he will have a family of patients with a better chance of living long and well.

Your children and yourself may have a friend as well as an equipped physician, equipped by you to serve as your personal guardian. For that there is no valuable substitute. There is no better insurance for normal pleasure and health. There is no "socialized" substitute for the close personal understanding of this watchful friend who *knows* you well enough to know quickly and confidently what to do whenever you can gain by beating your medical troubles to the punch.

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At 18 . . . gay—carefree—parties—dates—friendships . . . when personality and appearance mean so very much. Will your child be handicapped by a self-conscious knowledge that he or she has protruding teeth or "parrot lips"? These are only two of the possible results of thumb and finger sucking. Distorted palate and elongated thumbs and fingers are other possible results. Hundreds of mothers have broken their children of thumb and finger sucking with Preven-ta-habits . . . preventing possible disfiguration of facial contours, and the sometimes resultant warped personalities. Preven-ta-habits are equally effective in stopping nail biting, eye rubbing, and nose picking. Asleep or at play, they are comfortable for children of all ages, and inexpensive. Let us mail you the complete illustrated story of Preven-ta-habits, free upon request.

STEWART MFG. CO., 13 Island Park, Knoxville, Tenn.

PRICE LIST OF

Health Publications

Send for a free catalog listing publications of the American Medical Association dealing with community health, personal hygiene and sanitation. Listed are posters, lantern slides, plays, lectures, pamphlets and other publications of interest to the public. Help spread the gospel of health in your community.

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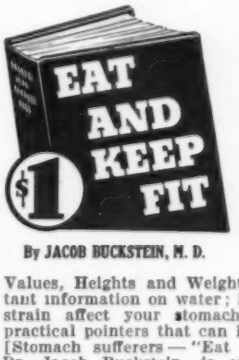

By JACOB BUCKSTEIN, M. D.

A noted doctor—a SPECIALIST—tells what to eat to gain more energy, to lose weight, or to put it on, to keep mentally alert, to ward off sickness, to improve your appearance! Contains BRAND NEW 14-day SAFE Diets to Lose or Gain. Latest discoveries about Vitamins and Minerals; charts of: Calories, Food Values, Heights and Weights, etc. New important information on water; how worry, fear and strain affect your stomach; also many other practical pointers that can help you *right away*. [Stomach sufferers—"Eat and Keep Fit," by Dr. Jacob Buckstein, is of utmost value for those with stomach trouble, and those who would avoid it!]

"Can be heartily recommended."
—Ohio State Medical Journal.

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Sex Satisfaction and HAPPY MARRIAGE

By Alfred H. Tyrer
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A practical handbook of sexual information to enable couples to achieve normal, happy marriage; intended for those married or about to be.

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"An outspoken guide to successful love-making in marriage." — The Book Dealers' Weekly.

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PORTRAIT OF A QUACK

(Continued from page 55)

accuracy, a fact which greatly surprised many of his critics. "How does he make *any* correct diagnoses?" asked the skeptics.

The explanation is simple. Abrams usually requested some bit of information about the patient when the blood was sent to him. One such letter read as follows:

"My dear Dr. Abrams:

"Enclosed find a drop of blood and $10. The specimen is from a patient of mine named Abraham C———. This man is 46 years of age and has been losing weight rapidly. He has a persistent cough. Please send diagnosis."

To this, Abrams replied:

"Diagnosis: Tuberculosis, apex of right lung, 6½ ohms. Incidentally, reaction shows Jewish strain on father's side. Advise treatment with Oscilloclast."

From such correspondence it is easy for any one with a most meager knowledge of medicine to understand how the diagnosis was made in this instance. The fact that the patient was losing weight rapidly and had a persistent cough was suggestive enough of tuberculosis, and if this disease were present, it would most commonly exist at the top of the right lung. The "Jewish strain on father's side" was probably a guess but not a bad one at that when the patient's name of Abraham is taken into consideration. Letter after letter, blotter after blotter, and no end of checks and money orders piled up with every mail. Is it any wonder that Abrams' fortune steadily rose into the millions?

Hundreds of greater and lesser personages flocked to the stone mansion on Sacramento street to attend courses in spondylotherapy and the E.R.A. Huddled into the little amphitheater on the second floor of his home, scratching hurried notes on sheaves of paper, they listened attentively while Abrams expounded his electronic theories. The lights of the room were dimmed, and in one corner there ticked away a little pendulum attached to an Oscilloclast, in turn attached to some poor invalid who patiently stood facing the West, momentarily expecting miracles from the wires attached to his wrists. Abrams, who in the words of one of his former assistants "could not wire a doorbell," had attempted to surround his audience with electrical wizardry.

He stood near the blackboard, dangling a tiny pith ball from the end of a thread. On the board he had written the numbers from 1 to 9; as he held the pith ball near them it swung crazily about in the air. "Observe the following," he said. "The even numbers repel the ball, owing to their negative energy, while the odd numbers attract it." He quickly erased the numbers and wrote the alphabet in its place. "Look now," he cried, "the vowels repel the ball, while the consonants attract. In a word, gentlemen, this simple instrument you see in my hand is in reality a highly sensitive electrometer. To some notes of a violin it swings north, to others south. A female's hair repels, a male's hair attracts this tiny ball. All things have sex, and every cell in our bodies gives off vibrations of different wavelengths."

With the demonstrations completed, the disciples filed out greatly awed, impressed that what they had seen they little understood but firmly believed.

As a drop of dried blood possessed the same "electronic wavelengths" as its original owner, the information that could be derived from it was unlimited. By testing the dried blood of an illegitimate child, Abrams determined who its father was and, sadly enough, the United States courts upheld his decision. Determining the sex of an unborn child was a simple matter. He even supposed that he could locate subterranean oil by his methods and said that the proverbial forked stick might well be imbued with the power of locating the precious fluid; but for obvious reasons he carried this piece of research no further. Tampering with human health was child's play compared to tampering with the pocketbooks of oil speculators.

The American Medical Association consistently belittled Abrams' claims and published numerous articles ridiculing his theories. This aroused the ire of Upton Sinclair, presidential timber, who was one of Abrams' staunch supporters. Sinclair did much to spread favorable propaganda for the charlatan by publishing an article, "The House of Wonder," describing the miracles of the E.R.A. In indignation he

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CHILD CARE

Shall We Let the Baby Cry It Out?

By RUTH PECK McLEOD and HAZEL L. CREEKMORE

THERE'S ALWAYS a reason for a baby's crying constantly. It may be that he is hungry or in pain, is too cold or too hot or is tired of lying in one position. It may be that he is spoiled, though seldom is this the case. Babies are not born spoiled, and still some of them cry during their first few days in the world.

People pity patients who lie flat on their backs in bed for weeks, and yet the babies who go through a similar ordeal are given little sympathy. The nurse carefully helps the adult to turn and rest his tired back, his cramped limbs; yet the baby is supposed to cry for exercise. It would seem that there are better forms of exercise for the baby than crying.

The well baby is usually the happy baby. He should have his regular schedule, and it should include very little crying. Discomfort due to gas often causes the baby to cry. His abdomen is distended; he is generally miserable, and his only way of sending out a distress signal is to cry. Sometimes holding him upright against your shoulder and patting him on the back will make him belch. If that does not remedy the situation, a warm soapy water enema with a small rubber ear and ulcer syringe will bring the gas down. If you are away from home you can give him a little milk of magnesia. This will help to relieve his constipation, which is frequently the cause of the accumulation of gas. Sometimes a baby will have difficulty in urinating.

Many a baby cries because he is fairly smothered in clothing and is kept in a deep basket on a feather pillow in an overheated room where the air is too dry; and of course the more he cries, the hotter he gets. Lifting him up a few minutes, adjusting any wrinkles in his clothing beneath him or taking off some of his covering may make him more comfortable. He may need a change of position. Turning him over on his side or his stomach for a while will rest him. Often the baby's hair gets worn off at the back from lying on it. At times he will enjoy being stripped in a warm room and allowed to kick his limbs in playful exercise.

Prickly heat or other skin eruptions will make the baby sufficiently uncomfortable to cause him to cry. Rubber sheets spread entirely under the baby will cause heat even if there is a pad over the rubberized cloth. Keep the rubber material, with a washable pad over it, only under his buttocks. Some babies have delicate skins which are easily inflamed by woollen garments.

The baby who is fed incorrectly will fret. If he is hungry and does not gain sufficiently in weight he has a just reason to protest by the only method he knows—that of crying. If he is artificially fed perhaps the formula he is taking is not suited to his needs. A doctor should check up regularly on a baby's condition. If the infant has rickets his joints will be sore, as his bones are not properly formed. Many babies have sore mouths and refuse to eat because of this condition. They cry from hunger; yet their mouths are too inflamed for them to take much food.

If the baby's diaper needs changing he will cry. If his skin is chafed the wet napkin will irritate him considerably. If he has had too many stools his anus may be red and inflamed. A little petrolatum may relieve him, and zinc stearate will be soothing for the irritation in the creases of the body. Pinning a diaper too tightly so that it binds and irritates an inflamed portion will cause discomfort.

Babies have many ills, and they have no other way to tell you about them than by crying. They may have earache or be in the incipient stages of some disease such as colitis or influenza. A bad cold will make breathing difficult while lying down; and the more the baby cries, the more stuffed up his nose becomes.

It is not advisable to be the fussy type of mother who picks up her baby every time he whimpers, but

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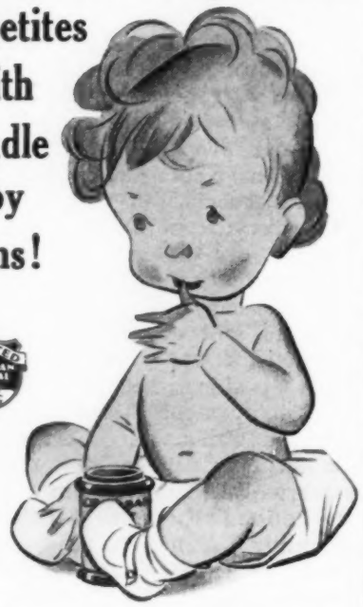

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it is always wise to investigate continued crying, as it is a warning that something is wrong. Look for symptoms of illness in such an infant; take his temperature by putting the thermometer under his armpit or by putting petrolatum on the rectal thermometer and inserting it in his rectum.

A baby does not cry because he has a temper inherited from a member of the family. Too many young mothers are apt to ignore crying. The more experienced mother will be able to interpret the various types of crying, such as the one from hunger and the one from pain.

Male babies especially may rupture themselves while crying, particularly if the abdominal band is too loose. Babies will expend an astonishing number of calories if they cry a great deal. Often babies cry from thirst, and the amount of water they lose in crying is considerable; therefore the longer they cry, the more thirsty they become. I doubt whether sleep that comes as a result of exhaustion from hours of crying does a great deal of good.

When looking after a tiny helpless baby remember that the well baby is never a "cry baby," that something is radically wrong with the cry baby. It may be his training; it may be his food or the lack of it; it may be the heat or the absence of it. In any case investigate the cause, as there is always a reason for that distress signal.

QUESTIONS FROM MOTHERS

Sleeplessness

To the Editor:—My child, aged 4 years, is highly sensitive and neurotic. We have a great deal of trouble in getting her to sleep at bedtime. Can you give me any suggestions?

M. L., Kansas.

Answer.—The possibilities are that the problem of sleeplessness in a child cannot be solved at bedtime alone. Probably the entire life of the child is so organized as to interfere with normal sleep. The normal child has no difficulty in going to sleep and, in fact, demands sleep if the bedtime does not come at the usual time. The entire relationships of the child with his parents and other associates and his environment should be studied, possibly with the aid of a psychiatrist.

Feeding Schedules

To the Editor:—Is there any reason why a 2 weeks old, healthy baby could not or should not be trained to omit the 6 a. m. feeding if fed on a 4 hour schedule and the 2 a. m. feeding is continued? He is entirely bottle fed. If this can be developed, what schedule would you suggest for giving orange juice and boiled water?

J. R., Minnesota.

Answer.—Without seeing and examining the baby, and thereby knowing all the facts in the case it is impossible to offer an opinion as to the advisability of omitting the 6 a. m. feeding in an infant's schedule or to suggest the proper hours of feeding. The problem of feeding the child is one that should be left entirely in the hands of the physician. If there is any valid reason for omitting the morning feeding and retaining the midnight feeding, the advice concerning this should be and can only be obtained from the physician who has seen and examined the infant.

Exposure to Disease

To the Editor:—My little girl's chum has the measles. As my child has not had it, wouldn't it be just as well to let the children play together, so that she could get the disease over with?

M. T., Nebraska.

Answer.—Under no circumstances should the child who is well be permitted to play with or come in contact with a sick child. This applies to mumps, measles, typhoid or for that matter any disease. Children should be protected against illnesses and not be permitted to contract them.

Kissing the Baby

To the Editor:—I have always felt that too much fondling and kissing was bad for a baby. Isn't it actually dangerous to his health if he is kissed on the mouth?

S. T., California.

Answer.—Kissing is often cited as an instance for the spreading of certain contagious diseases. This is especially true when adults kiss babies on the mouth.

PORTRAIT OF A QUACK

(Continued from page 92)

wrote a voluminous letter to the American Medical Association, condemning the organization for poking fun at the master without investigating his work. "Now I am spending another two weeks in his clinic," he wrote, "and I venture to stake whatever reputation I have or hope to have in this world upon the statement that Albert Abrams has discovered the great secret of the diagnosis and cure of all the major diseases." The Association replied that they would take up Abrams' fantastic vagaries for serious consideration when the American Astronomical Society appointed a committee to determine the truth or falsity of the theory that the earth is flat.

The miracles of Abrams soon surpassed the bounds of imagination and entered the realm of fantasy. He could diagnose the race, religion, paternity, disease, location and amount of the disease from a drop of blood. He even became so expert that he could diagnose the diseases of individuals long dead and gone by submitting their *handwriting* to his electronic machine. For example, he examined the autographs of Samuel Johnson, Edgar Allan Poe, Longfellow, Samuel Pepys and Oscar Wilde and found them all to be victims of venereal disease. The handwriting of Poe even showed the "reaction of dipsomania," although most of us could ascertain that Poe was not a teetotaler without elaborate electrical devices. But there was one fly in Abrams' magic ointment. He had a little trouble distinguishing between the blood of human beings and animals, and pranksters were persistent in sending him drops of blood from guinea pigs, chickens, horses and hogs. Abrams was embarrassed when he found that he had inflicted several ohms of a venereal disease on an innocent rooster!

In 1924, Albert Abrams died of pneumonia; and with his passing, America lost a great actor, a picturesque charlatan, a man who rose to world notoriety while descending from the height of professional integrity to the rank of Machiavellism. By this time the exposure of his fraud was well under way. The furor of the E.R.A. gradually dwindled, and the exponents of Abramsmania, and the healers who were wont to use his devices, took up other fads more acceptable and more lucrative.

The passing of the master, however, did not mean death for the child of his brain, for his quackery underwent a metamorphosis and paved the way for Wilshire's Ionaco, the magical "horse collar" which engirdled many a credulous American and was as quickly discarded. It paved the way for the electronic and radionic machines now used by hundreds of medical cultists. The story of Abrams is but another chapter in the history of quackery, itself as old as civilization. No greater truth has been spoken than the words of Albert Abrams himself, who, understanding human nature perhaps better than most of us, once said: "The physician is only allowed to think he knows it all, but the quack, ungoverned by conscience, is permitted to know he knows it all; and with a fertile mental field for humbuggery, truth can never successfully compete with untruth."

HEALTHGRAMS—*from articles in this issue*

¶There is no "socialized" substitute for the close personal understanding of your doctor who *knows* you well enough to know quickly and confidently what to do whenever you can gain by beating your medical troubles to the punch.

See page 50

¶Sound, produced by the action of the breath on the vocal cords, is the raw material of speech.

See page 26

¶Acute rheumatic fever is a serious disease which may have either an abrupt or a gradual and insidious onset.

See page 43

¶One of the reasons the closely supervised youngster is so susceptible to colds is that he is not given the opportunity of developing any natural immunity.

See page 28

¶Babies have many ills, and they have no other way to tell you about them than by crying.

See page 93

¶Far from being a curse, eyeglasses are indeed a blessing, without which the greater number of people would be unable to cope with the demands made on their sight by modern conditions of life.

See page 11

¶The scientific mind must always fight against the tendency to jump to conclusions.

See page 33

¶Outmoded methods of health teaching conceived of instruction in hygiene as so much subject matter to be committed to memory; health education today thinks of health as a way of living.

See page 67

¶The "going without breakfast" idea should be frowned on; for business men and women, the forenoon should be the most productive part of the day.

See page 46

¶There is nothing to dread about cancer of the breast if one finds it in time, because it can be cured!

See page 56

¶Not until a person's gums assume the form that they will have the remainder of his life can he be sure that his new set of false teeth will be entirely satisfactory to him.

See page 40

¶We are endowed with an almost infinite number of interests which represent capacity for accomplishment.

See page 16

Medical News OF THE MONTH

Cancer of Larynx

Patients with cancer of the larynx should be submitted to operation in preference to x-ray and radium treatment, Chevalier Jackson, M.D., and Chevalier M. Jackson, M.D., Philadelphia, state in *The Journal of the American Medical Association.*

New Bacteria Count Method

As high as 31,000,000 bacteria were found on his arms and hands by Philip B. Price, M.D., Baltimore, by means of a new quantitative method of studying the bacteria on the skin, he reports in *The Journal of the American Medical Association.*

Voters Support Scientific Medicine

The voters of California and Colorado by overwhelming majorities emphatically rejected recently proposals made in those states to undermine the structure of scientific medicine.

In California a proposed humane pound law, so called, which would have crippled scientific research by hampering animal experimentation, was decisively defeated. In Colorado an initiative measure proposed by a group of chiropractors to debase the quality of medical care in the state by repealing the basic science act and by destroying other safeguards that have been erected to assure adequate and scientific medical service, was met by an avalanche of negative votes running as high as ten to one in some counties.

An editorial in *The Journal of the American Medical Association* says of these elections: "The results indicate that an informed electorate will support scientific medical care under proper legal and ethical safeguards."

Heart Disease Exhibit

An exhibit symposium on heart disease has been arranged for the Scientific Exhibit at the St. Louis session of the American Medical Association, May 15-19, 1939. It will be presented with the cooperation of the American Heart Association.

A Sickness Survey

The Washington County (Ia.) Medical Society in a survey of medical care reports that it feels assured that the medical services in Washington County are adequate, their acceptance quite general and that there is no necessity for any change in the application of medical services available to the needs of the county.

Theirs is a part of a nationwide survey of medical care being conducted under the direction of the American Medical Association.

Allergy Knowledge Advances

Complete relief for most people suffering with bronchial asthma often now is available through the evolution of the knowledge of allergy, Albert H. Rowe, M.D., Oakland, Calif., reports in *The Journal of the American Medical Association.* Most of this knowledge has been developed during the past two decades, especially the frequency of food allergy as a major and often a complicating cause.

Mother's Food and Baby's Colic

There are no foods which need be deleted from the diet of the average nursing mother because they might produce such ill effects as colic on the baby, *The Journal of the American Medical Association* reports. A mother, ordinarily, may eat anything that agrees with her own digestion. A diet which is suitable for her under normal conditions will be suitable during the period of lactation, except that she will need to take a somewhat larger amount.

Serum Saves Life in Pneumonia

The efficacy of antipneumococcic serum is so clear that it should be supplied free by state and city boards of health to those who cannot afford it, Russell L. Cecil, M.D., and Edgar A. Lawrence, M.D., New York, advocated recently in an article in *The Journal of the American Medical Association.*

Asphyxiation of Newborn

The first fifteen minutes after birth is the most dangerous period of life, an article on asphyxia of the newborn in *The Journal of the American Medical Association* points out.

During this period the mortality is as great as that of any subsequent month. Five out of every hundred babies born alive die within the first twenty-four hours of life.

Air Conditioning

Air conditioned rooms may be found an important addition to the equipment of physical therapy departments, says H. C. Bazett, M.D., Philadelphia, in *The Journal of the American Medical Association.* The effect of heat on the blood volume and circulation in relation to physical treatment is among the factors involved in such application of air conditioning.

Kidney Function in Pregnancy

If the function of the kidney is not impaired, it is believed that toxemia (accumulation of poisonous substances in the blood) of pregnancy will not develop, F. L. McPhail, M.D., Great Falls, Mont., states in *The Journal of the American Medical Association.*

Feebleminded Marriages

The feebleminded tend to marry earlier than average normal adults, and apparently they procreate more rapidly, Charles P. Sheldon, M.D., Boston, and Lloyd H. Ziegler, M.D., Wauwatosa, Wis., report in *The Journal of the American Medical Association.*